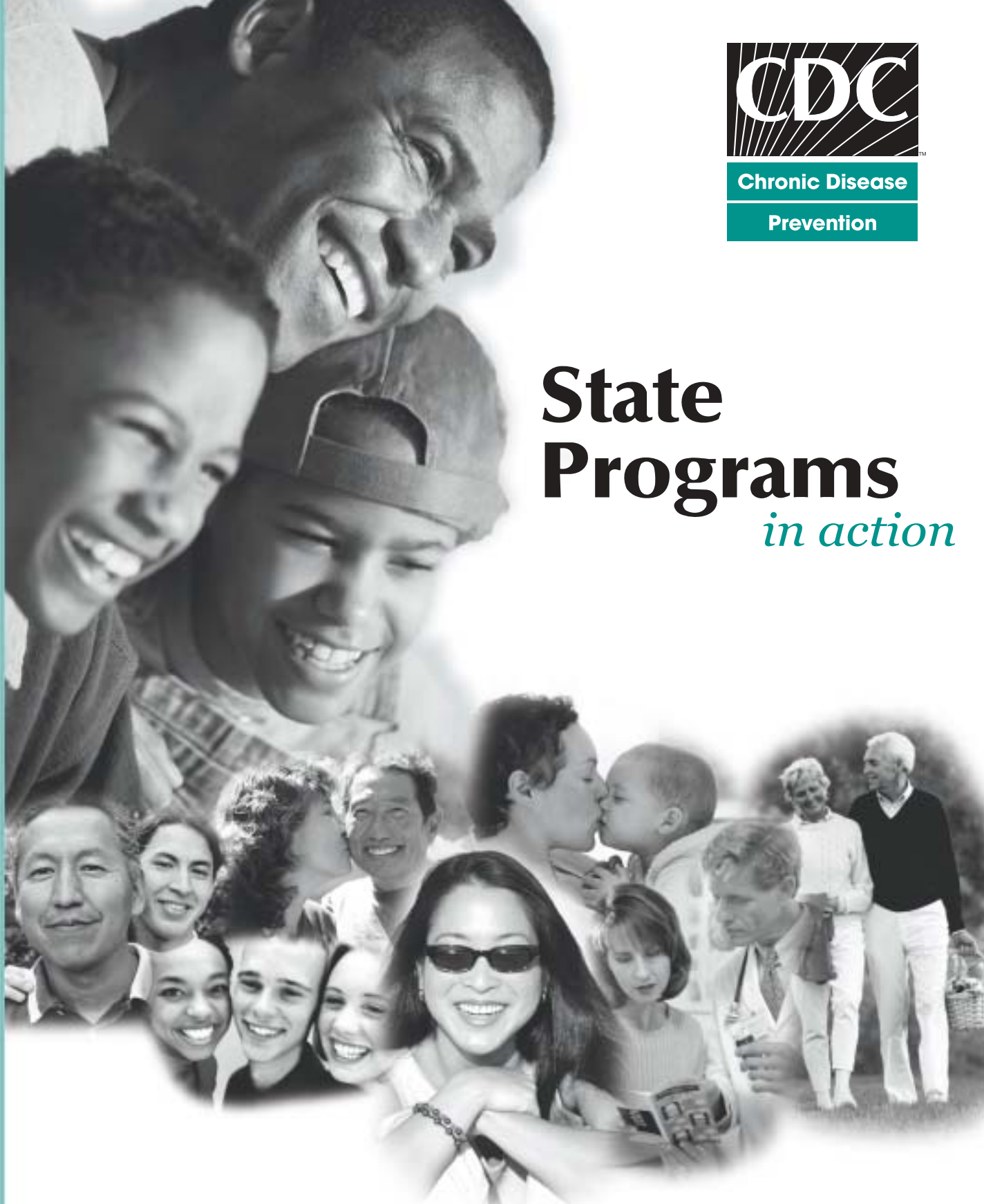




Chronic Disease

Prevention

# State Programs *in action*



Exemplary Work to Prevent Chronic Disease  
and Promote Health

**2003**

Department of Health and Human Services



For more information or additional copies of this document, please contact the  
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# **State Programs in Action**

Exemplary Work to Prevent  
Chronic Disease and Promote Health

2003

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**DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
CENTERS FOR DISEASE CONTROL AND PREVENTION  
SAFER • HEALTHIER • PEOPLE™



## **Message from James S. Marks, MD, MPH Director, National Center for Chronic Disease Prevention and Health Promotion Centers for Disease Control and Prevention**

Now, more than ever, it is critical that we step up prevention efforts to fight chronic diseases, including heart disease, stroke, diabetes, cancer, and arthritis. An aging population coupled with poor lifestyle choices, including tobacco use, poor diet, and lack of physical activity, means that as a nation, we face a chronic disease epidemic that will radically change the quality of life of our citizens and potentially bankrupt the health care system.

We are at a crossroads where the health and well-being of our generation and future generations will be determined by the actions that we as a society undertake today. The following exemplary state programs demonstrate approaches that public health professionals at the state and local levels are pursuing to address this epidemic of chronic disease. While some of these programs are in the early stages, others have yielded encouraging results with dramatic implications for other states and prevention programs targeting other health conditions.

As the nation's prevention agency, the Centers for Disease Control and Prevention (CDC) continues to fund and work with states to implement effective science-based interventions. At the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), this is our second year showcasing state programs that not only demonstrate the commitment to reduce chronic disease, but also serve as a model for other states that want to implement programs that work.

We hope that by sharing successes from around the country, we will continue to build awareness for programs that promote a better quality of life. We believe strongly that programs like these can maximize the health of our citizens, provide good health value, and help slow the increases in medical care costs. We encourage you to join us in the fight against chronic disease and thank all of our partners for making these programs a success.

Here's to a healthy 2003.

A handwritten signature in black ink, reading "James S. Marks". The signature is fluid and cursive, with the first name "James" and last name "Marks" clearly legible.



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## Introduction

Chronic diseases such as cancer, diabetes, heart disease, and stroke account for 70% of all deaths in the United States, and more than 90 million people in the United States live with chronic illnesses. Through proper intervention and prevention programs, however, chronic diseases are among the most preventable of all health problems. The Centers for Disease Control and Prevention (CDC) developed this document to provide examples of state-based programs that make a sustained contribution to reducing the burden of chronic disease in the United States.

State chronic disease directors, state prevention program coordinators, and CDC staff selected these examples, which range from community-based demonstration projects to the reform of state policies. In order to be selected, programs had to be based on strong research, demonstrate innovative approaches, or yield positive, measurable outcomes. These examples showcase urban and rural programs, as well as programs that reach diverse audiences or reduce disparities in accessing preventive care services.

The following programs also represent capacity building and basic implementation CDC-funded states, as well as community demonstration projects, and it is important to understand the differences.

- **Capacity building** (formerly known as core) funding strengthens the capacity of states through the development of a state team, a state plan, partnerships, and a program design to assess and reduce the burden and disparities in chronic diseases and associated risk factors, including the piloting of prevention and control interventions and delivery strategies.
- **Basic implementation** (formerly known as comprehensive) funding, through work with partners, establishes public policies that support health promotion, systems changes, environmental interventions, and social marketing and communications efforts at the state and local levels. States may establish systematic community and environmental interventions in high-priority communities, reaching high-risk groups, and then share what is learned locally, throughout the state, and with other states.
- **Community demonstration projects** are local, innovative interventions with a significant evaluation component to determine whether these types of programs should be implemented broadly statewide or nationally.

By sharing these exemplary programs, CDC hopes that other states will be able to use these unique approaches and successfully enhance chronic disease prevention efforts at the state and local levels.

### **CDC's Role in These Exemplary State Programs**

As the nation's prevention agency, CDC has a mandate to prevent unnecessary death, disease, and disability. CDC's National Center for Chronic Disease Prevention and Health Promotion works to ensure that advances in basic scientific and behavioral research are put into practice. Key scientific findings must be applied, evaluated and reflected in state and local health policies and widely adopted as community practices across the country. CDC's goal is to apply research findings in chronic disease prevention and control to people in communities across the country.

Critical to CDC's mission is providing support and assistance to states to develop comprehensive, sustainable, prevention programs to target the leading causes of death and disability such as heart disease, stroke, cancer, and diabetes and their principal risk factors including tobacco use, poor nutrition, and lack of physical activity.

Specifically, CDC provides

- Public health research to measure disease burden, identify populations at risk, target program efforts and evaluate program effectiveness.
- Scientific and technical expertise in such areas as epidemiology, program design, and evaluation.
- Public and professional education.
- Effective communications strategies to promote health.

CDC promotes state-based programs that encourage healthy behaviors and reduce chronic disease risk factors. These programs should be directed to populations at greatest need and build on a foundation of scientific evidence. Through its state and local health partners, CDC helps achieve healthier communities through effective policies and programs such as those highlighted in *State Programs in Action*.

# Arthritis



For more information about CDC's arthritis program,  
visit <http://www.cdc.gov/nccdphp/arthritis/index.htm>



## Controlling Arthritis in a Rural Community Through the Arthritis Self-Help Course

### Public Health Problem

Arthritis or chronic joint symptoms affect almost 70 million Americans—nearly one of every three adults, making it among the most common health problems in the United States. Arthritis is the most frequent cause of disability in America; more than 7 million citizens are limited in some way because of arthritis. In Alabama 36%, or 1.1 million people, have arthritis. Of this number, approximately 46% have household incomes of less than \$20,000, and 50% have less than a high school education. In addition, access to health care continues to be a problem outside of the major metropolitan area of Birmingham.

### Evidence That Prevention Works

Research has shown that the pain and disability associated with arthritis can be minimized through the use of appropriate self-management behaviors and early diagnosis and treatment. The Arthritis Self-Help Course, developed at Stanford University, teaches people how to manage their arthritis and minimize its effects. This course, taught in a group setting, has been shown to reduce arthritis pain by 20% and physician visits by 40%.

### Program Example

With CDC support, Alabama is developing and evaluating a community project in Pineapple, an underserved, rural, African American community in Wilcox County, which has some of the state's poorest health indicators. This project, building on an existing community health advisory model, delivers the Arthritis Self-Help Course. By encouraging people to participate in this course, public health advisors are improving the quality of life for people with arthritis in this rural setting. As a result of partnerships developed in conjunction with the Alabama Arthritis Coalition, this project has encouraged a rheumatologist to travel 2 hours from Tuscaloosa to the community of Pineapple to hold a clinic one day each month to give this underserved group access to specialized care and treatment.

### Implications

The Arthritis Self-Help Course has reached less than 1% of the population nationwide; more widespread use of this course would save money and reduce the burden of arthritis. This project demonstrates the importance of identifying and implementing strategies to increase the use of this course in rural, underserved communities. Community-based projects like the one in Alabama are more likely than traditional ones to be responsive to the needs and culture of the community and can serve as a model for reaching underserved populations in other states as well.

#### Contact Information



## Introducing a Spanish Version of the Arthritis Self-Help Course

### Public Health Problem

Arthritis or chronic joint symptoms affect almost 70 million Americans—nearly one of every three adults, making it among the most common health problems in the United States. Arthritis is the most frequent cause of disability in America; more than 7 million citizens are limited in some way because of arthritis. In California, which has the largest Hispanic population in the United States, approximately 4 million adults have self-reported arthritis.

### Evidence That Prevention Works

The Arthritis Self-Help Course, developed at Stanford University, teaches people how to manage their arthritis and minimize its effects. This course, taught in a group setting, has been shown to reduce arthritis pain by 20% and physician visits by 40%; however, the Arthritis Self-Help Course has reached less than 1% of people with arthritis throughout the United States.

### Program Example

With CDC support, California is increasing its efforts to reduce the burden of arthritis among diverse populations, including its Hispanic population. The California State Health Department is working with the Arthritis Foundation, Southern California Chapter, to provide a Spanish-language version of the Arthritis Self-Help Course (SASHC) for farm and transient workers. The SASHC, also developed at Stanford, was designed specifically to meet the needs of Spanish-speaking people, and California is conducting the program in communities with the highest proportions of people who only speak Spanish. Approximately 141 participants enrolled in the course between October 1999 and May 2001. Participants reported significant improvement in their ratings of general health, sleep, depression levels, and ability to cope with activities of daily living. At follow-up, participants continued to show improved long-term outcomes. Participants' comments indicate their high satisfaction with the program and improved communication with others regarding arthritis.

### Implications

Identifying and implementing strategies to increase the use of this course in Hispanic communities will expand the reach of this program to diverse populations. It also can serve as a model for reaching underserved populations in other states. More widespread use of this course nationwide would save money and reduce the burden of arthritis. This program demonstrates the importance of creating campaigns and materials in multiple languages to reach special populations with prevention messages.





## Promoting Physical Activity for People With Arthritis

### Public Health Problem

Arthritis or chronic joint symptoms affect almost 70 million Americans—nearly one of every three adults, making it among the most common health problems in the United States. Arthritis is the most frequent cause of disability in America; more than 7 million citizens are limited in some way because of arthritis. Arthritis affects one of every three adults in Georgia, or approximately 1.8 million people; of these 1.8 million people with arthritis, 34% report that they engage in less physical activity than the general population.

### Evidence That Prevention Works

A growing number of reports suggest that exercise has positive health benefits for people with arthritis. CDC's Arthritis Program is supporting research to examine the role of physical activity in lessening the effects of arthritis. The Surgeon General's report on physical activity and health brings together state-of-the-art research on the benefits of physical activity. According to the report, "Physical activity is essential for maintaining the health of joints and appears to be beneficial for controlling symptoms of osteoarthritis and rheumatoid arthritis."

### Program Example

The Georgia Division of Public Health piloted a physical activity program for people with arthritis in Georgia's West Central Health District. Three counties, representing urban, small-town, and rural populations, participated. Program leaders include representatives of the Georgia Division of Public Health, the Arthritis Foundation, and the Area Agency on Aging. Teams of 8 to 10 people with arthritis participated in 20 weeks of physical activity such as walking, gardening, swimming, and ballroom dancing. Team captains held group activities for their teams and provided educational materials and encouragement via telephone calls. Participants kept logs of their physical activity each week. This project has served as a catalyst for social change in the area. Local residents who recognized the need for a safe place to engage in physical activity have formed a coalition to advocate for such a place from the Webster County Board of Commissioners.

### Implications

This program will provide information on how to implement community-based physical activity programs in urban, small-town, and rural settings. This information will help Georgia expand its program and will help other states increase physical activity levels among their residents. Using preliminary evaluation data, the Georgia Division of Public Health has identified gaps in the program. The revised program, to be conducted in 2003, will include an educational component, the Arthritis Self-Help Course, and will rely on partners to sponsor classes, recruit participants, and provide staff to serve as program coordinators and team captains. The second pilot will be conducted in metropolitan Atlanta and southwest Georgia.

### Contact Information

Georgia Division of Public Health • Arthritis Program  
2 Peachtree Street, Room 16-453 • Atlanta, Georgia 30303  
Phone: (404) 657-6643 • Web site: [www.ph.dhr.state.ga.us/](http://www.ph.dhr.state.ga.us/)



## Improving Arthritis-Related Quality of Life Among Farmers

### Public Health Problem

Arthritis or chronic joint symptoms affect almost 70 million Americans—nearly one of every three adults, making it among the most common health problems in the United States. Arthritis is the most frequent cause of disability in America; more than 7 million citizens are limited in some way because of arthritis. There is substantial evidence that farmers and those involved in farm-related activities are at increased risk for hip and knee osteoarthritis. Approximately 1.5 million people in Missouri have arthritis, which represents 37% of the adult population in the state.

### Evidence That Prevention Works

Research has shown that the pain and disability associated with arthritis can be minimized through the use of appropriate self-management behaviors and techniques. Particular modifiable behaviors include activities that require kneeling, squatting, and lifting heavy objects.

### Program Example

The Missouri Arthritis & Osteoporosis Program (MAOP) partnered with the Missouri Arthritis Rehabilitation Research and Training Center to promote and support efforts of the University of Missouri Agricultural Engineering Extension Project that targets farmers in their state. The AgrAbility Project engages extension specialists, disability experts, rural professionals, and volunteers, including MAOP staff. This partnership organizes and assists farmers in remaining active despite disabilities related to their arthritis. This assistance includes giving instruction in the appropriate way to enter and exit a tractor in order to minimize pain, distributing arthritis-related information, providing adaptive devices and technology, and demonstrating techniques to help improve the farmers' quality of life. The project is designed to help an estimated 30,000 of Missouri's 136,000 farmers, ranchers, and agricultural workers who have a disease, disorder, or disability that limits their ability to perform some work-related or daily-living tasks.

### Implications

Agriculture is one of Missouri's largest and most diverse sources of revenue. Developing programs that will improve the work-related quality of life for this segment of the population will reduce the number of people who experience limitations because of arthritis. In addition, these programs could serve as a model for other states with large agricultural populations.



## Increasing Physician Referrals to the Arthritis Self-Help Course

### Public Health Problem

The Utah Arthritis Program conducted social marketing research to develop effective messages and practical ways to reach women with arthritis and encourage them to participate in the Arthritis Self-Help Course. Utah found that none of the women with arthritis who participated in the research had been referred to self-help courses by their medical providers, even though self-help courses can reduce arthritis pain significantly. The lack of referrals appears to be widespread: in 1997, the Arthritis Self-Help Course reached less than 1% of people with arthritis nationwide.

### Evidence That Prevention Works

Developed at Stanford University, the Arthritis Self-Help Course teaches people how to better manage their arthritis and minimize its effects. This course, taught in a group setting, has been shown to reduce arthritis pain by 20% and physician visits by 40%.

### Program Example

With CDC support, the Utah Department of Health implemented a program to identify factors that influence physicians' referrals to arthritis self-help programs. Physicians' knowledge, attitudes, beliefs, and practices related to referring patients to arthritis self-help programs and other educational resources for arthritis were assessed. This research included five 2-hour focus groups comprising Utah primary care providers including nurse practitioners, physician assistants, and physicians. Additionally, all primary care providers in Utah (600 total) were mailed a survey, and 22% of these were returned. The findings of the survey support the findings of the focus groups. The primary findings were that the participants had a very low "top of mind" awareness of arthritis resources, felt "hopeless" about treating those with arthritis, had a desire for additional information about resources that could assist their patients, and would be more likely to recommend the Arthritis Self-Help Course if they received positive feedback from patients who had taken the course.

### Implications

The Arthritis Self-Help Course is a cost-saving intervention that reduces arthritis pain and physician visits. Using data from this research program, the Utah Department of Health has designed and implemented a provider-based quality improvement project focused on increasing participation in self-management programs such as the Arthritis Self-Help Course. More widespread use of the Arthritis Self-Help Course nationwide would save money and reduce the burden of arthritis. This program demonstrates the importance of research and understanding reasons physicians do not refer patients to this course, which allows various groups to develop interventions to increase physician referrals.

### Contact Information



# Block Grant: Preventing Chronic Disease



For more information about CDC's block grant funding,  
visit <http://www.cdc.gov/nccdphp/blockgrant/index.htm>



## Preventing Tooth Decay—A Common Childhood Disease

### Public Health Problem

Tooth decay is one of the most common childhood diseases—5 times as common as asthma and 7 times as common as hay fever in 5- to 17-year-olds. Nearly all tooth decay can be prevented when fluoridation is combined with dental sealants and other fluoride products, such as toothpaste. Community water fluoridation is considered one of the great public health achievements of the 20<sup>th</sup> century; however, currently only 22% of Montana's population is served by fluoridated public water supplies.

### Program Example

The Montana Dental Access Coalition has developed strategies during two statewide summits to improve the oral health of Montana's citizens, which includes support for the use of fluoride to prevent dental decay. As a way to improve understanding of the benefits of fluoride to local multidisciplinary health professionals, the Fluoride Awareness Project was created by the Coalition with the support of Preventive Health and Health Services (PHHS) Block Grant funds for fiscal year 2001. The Fluoride Awareness Project includes a folder of information about the various sources and benefits of fluoride and community data regarding the level of fluoride in all Montana public water systems. A main objective of the project was to create awareness among dental and medical professionals of local fluoride levels to assist them in prescribing optimal fluoride supplementation and, at the same time, prevents fluorosis. In March 2002, 1,500 Fluoride Awareness Project packets were sent to Montana obstetricians, pediatricians, family practitioners, dentists, dental hygienists, water treatment plant operators, Head Start and Special Supplemental Nutrition for Women, Infants, and Children (WIC) programs, school nurses, Indian Health Service dental clinics, community health centers, and other oral health professionals in an effort to provide up-to-date information for use at the local level.

### Implications

PHHS Block Grant funds helped address Montana's dental access crisis by educating health advocates who work with children and families about the effectiveness of fluoride in preventing dental decay. Billings, Montana's largest city, organized a community water fluoridation campaign and delivered the packets directly to members of the community. Other communities have used the packets to inform city council members and policy makers of the benefits of water fluoridation. Following an additional 450 requests for the packets from health professionals, the Montana Dental Association and the Montana Primary Care Office provided funds for additional mailings.

### Contact Information

Montana Department of Public Health and Human Services • Oral Health Program  
1400 Broadway, Room C314 • Helena, Montana 59620  
Phone: (406) 444-0276 • Web site: [www.dphhs.state.mt.us](http://www.dphhs.state.mt.us)



# New Hampshire

## Building Teams to Combat Sick Building Syndrome

### Public Health Problem

The U.S. Environmental Protection Agency (EPA) reports that people in industrialized countries spend more than 90% of their time indoors. For infants, older adults, people with chronic diseases, and most urban residents of any age, the proportion of time spent indoors is estimated to be higher. The term “Sick Building Syndrome” (SBS) describes a situation in which reported symptoms among a population of building occupants can be associated with their presence in that building. Typical complaints include eye, nose, or throat irritation; nasal congestion; inability to concentrate; and general malaise. New Hampshire was ranked second in the nation for inadequate ventilation within public buildings and school facilities.

### Program Example

The New Hampshire Department of Health and Human Services used Preventive Health and Health Services (PHHS) Block Grant funds to develop a partnership with the EPA regional office in Boston to implement the indoor air quality Tools for Schools (TfS) program. The funds also helped establish a statewide health consultation program for Sick Building Syndrome that deals with the interrelated problems of poor facility conditions and sensitive school populations such as children with asthma, allergies, and disabilities. This team-based approach to solving indoor air quality problems provides the investigative tools for identifying indoor pollutants, evaluating building conditions, and managing sensitive populations. At the conclusion of the program, the TfS team is prepared to implement short-term environmental and behavioral solutions and plan for long-term capital improvement to affected facilities as needed. PHHS Block Grant funds ensured that the New Hampshire Indoor Air Quality Program was able to fulfill the core public health functions of surveillance for sick buildings and people, implement realistic interventions to assist the occupants, and assess the impact of TfS through tracking of school health data and facility conditions.

### Implications

The goal of the New Hampshire Indoor Air Quality Program is to facilitate long-term institutional change by creating permanent, facility-based teams to monitor building ecosystems and the health of the building inhabitants. Over the course of 2001, the New Hampshire Department of Health and Human Services advised staff at 23 public buildings and 46 school facilities through phone consultations or site visits. As part of this process, the New Hampshire Department of Health and Human Services provided 6 Tools for Schools training sessions and distributed 22 TfS guidance kits to educational facilities.



# Cancer



For more information about CDC's cancer control program,  
visit <http://www.cdc.gov/cancer>

# Cancer Prevention and Control





## Broadening Access to Asian Populations Through a Breast Cancer Hot Line

### Public Health Problem

In California in 2002, an estimated 19,900 cases of breast cancer were diagnosed, and 3,900 women died of breast cancer. Racial and ethnic minorities are disproportionately affected by cancer. For Asian American women, cancer has been the leading cause of death since 1980. A variety of factors, including cultural differences, language barriers, and logistical barriers such as lack of transportation to and from a clinic, contribute to these women never or rarely having been screened for breast and cervical cancer.

### Evidence That Prevention Works

Interventions based on cultural sensitivity and trust are effective in promoting the early detection of breast cancer in racial and ethnic minority populations. For those populations who speak little to no English, eliminating language barriers is often a first step in successful outreach and education efforts.

### Program Example

The California Department of Health's *Every Woman Counts* program launched the first statewide breast cancer hot line in the United States for Asian American women. As a way of reaching this population, the department broadened its hot line to offer information in Chinese (Mandarin and Cantonese dialects), Korean, and Vietnamese, in addition to the information already offered in English and Spanish. Through its 2000 public awareness campaign, *Every Woman Counts...Every Year*, the department sponsored radio and print ads in Chinese, Korean, and Vietnamese to let Asian American women know about the hot line. Because of the campaign, the number of calls to the hot line increased from 24 in April 2000 to 576 in June 2000. On average, the hot line continues to receive approximately 60 to 80 calls per month, three times the number received prior to the campaign.

### Implications

As a result of the hard work and sensitivity of the outreach workers, access to potentially lifesaving information was improved. Hundreds of women learned about available cancer screening services because of linguistically and culturally appropriate outreach efforts. This program demonstrates the importance of reaching special populations through a targeted public awareness campaign.

### Contact Information

California Department of Health Services • Cancer Detection Section  
601 North 7th Street, MS-428 • P.O. Box 942732 • Sacramento, California 94234-7320  
Phone: (916) 327-2784 • Web site: [www.dhs.ca.gov/cancerdetection/](http://www.dhs.ca.gov/cancerdetection/)



## **Examining New Partnerships and Innovative Educational Approaches for a Comprehensive Cancer Control Program**

### **Public Health Problem**

Malignant melanoma (the deadliest form of skin cancer) causes more than 75% of all deaths from skin cancer in the United States. Diagnosed at an early stage, malignant melanoma can usually be cured, but if diagnosed at a late stage, it is more likely to spread and cause death. During 1993–1997, Colorado’s incidence rate for melanoma was 31% higher than the overall U.S. rate. The incidence rate for non-Hispanic white males climbed 9% between 1993 and 1997.

### **Evidence That Prevention Works**

Exposure to the sun’s ultraviolet (UV) rays appears to be the most important risk factor in the development of skin cancer; therefore, when sun protection measures are used consistently, skin cancer is largely preventable.

### **Program Example**

A public education campaign that included the brochure “Sun Smart Tips” was launched in June 2001. This campaign resulted from a unique partnership between the state health department’s Comprehensive Cancer Prevention and Control Program and Mesa Verde National Park, which has about 600,000 visitors annually. National park officials educated Colorado residents, as well as visitors from all over the world, about the steps they can take to be safer in the sun. The goal of this campaign was to educate park visitors about the need to protect themselves from the damaging rays of the sun and how best to prevent skin cancer. In addition to park staff handing out thousands of brochures at the park entrance gates, the rangers incorporated “Sun Smart Tips” into their regularly scheduled talks, which are held frequently throughout the year.

### **Implications**

This project was so well received that plans are under way to make the skin cancer brochures and information available at Colorado’s highway visitors’ centers. Thousands of travelers can potentially be reached with important sun safety messages. This effort also underscores the added value of coordinated partnerships to disseminate consumer-oriented information on cancer prevention.



# Connecticut

## Using Peer Communication to Create an Early Detection Program

### Public Health Problem

In 2002, an estimated 2,600 cases of invasive breast cancer and 100 cases of cervical cancer were reported in Connecticut; approximately 500 women died of breast cancer in Connecticut.

### Evidence That Prevention Works

Interpersonal strategies, those that involve communication with a family member or a person in one's social network, are effective in promoting early detection and treatment of breast and cervical cancer. Using peers to encourage women to be screened for cancer may eliminate language barriers and can help a program better address cultural and community factors.

### Program Example

Funded by CDC, Connecticut's Breast and Cervical Cancer Early Detection Program focuses on providing screening services to the state's uninsured or underinsured older women who are from racial or ethnic minority groups. As of 2001, more than 18,000 of the state's uninsured, low-income women had received services through this program. This number represents 45% of the state's program-eligible population. Nearly 18% of these women are African American, and 20% are Hispanic. At enrollment, women receiving program services were asked how they heard about the program. Twenty-four percent (24%) of these women said that they heard about it through outreach educators who were members of the local community and employed by the Connecticut program to recruit women for screening services.

### Implications

Without this program and the commitment and work of the outreach educators, these Connecticut women may not have received potentially lifesaving early detection services. This program emphasizes the importance of using peer communication as an effective way to reach underserved populations.

### Contact Information

Connecticut Department of Public Health • Breast and Cervical Cancer Program  
410 Capitol Avenue, MS# 11HLS • Hartford, Connecticut 06134-0308  
Phone: (860) 509-7804 • Web site: [www.dph.state.ct.us/BCH/HEI/bccedp\\_program\\_locations.htm](http://www.dph.state.ct.us/BCH/HEI/bccedp_program_locations.htm)



## Creating an Innovative Visual Aid to Help Communicate the Importance of Early Detection

### Public Health Problem

In Idaho in 2002, an estimated 900 women were diagnosed with breast cancer, and approximately 200 women died of breast cancer.

### Evidence That Prevention Works

Studies show that early detection of breast cancer and a comprehensive follow-up program save lives. Timely mammography screening could prevent 15% to 30% of all deaths from breast cancer among women over the age of 40. Studies show that early detection is the best protection against breast cancer deaths. When breast cancer is diagnosed at a local stage, 96% of women are still alive 5 years later. If the cancer spreads regionally, this rate is reduced to 78%, and if diagnosed after spreading to distant sites, the 5-year survival rate is reduced to 21%.

### Program Example

Idaho's Breast and Cervical Cancer Early Detection Program, Women's Health Check, developed an innovative way to teach women about breast cancer using a visual tool. The program is called "Ask Me," and it uses wooden beads to illustrate the various tumor sizes that can be detected by mammography. This visual image helps women understand the importance of getting regular exams and demonstrates how early a tumor can be detected, even when it is very small. A curriculum also was developed for the program. The program was launched in conjunction with McCall Memorial Hospital, the Idaho Breast and Cervical Cancer Alliance, and the American Cancer Society. Sorority groups, cancer centers, Idaho's Hispanic women's group, local jewelry stores, and health insurance companies implemented the program.

### Implications

By using a visual aid to support its early detection message, this program illustrates the importance of early detection and screening and demonstrates the impact that a visual aid can have on promoting prevention.





## Screening Underserved Populations Through Collaboration Among Government Agencies and Nonprofit Organizations

### Public Health Problem

In Indiana in 2002, an estimated 4,600 women were diagnosed with breast cancer and 300 with cervical cancer, and 900 women died of breast cancer. Underserved populations include those people who are least likely to be screened for breast and cervical cancer. As a result, these populations also are at the greatest risk of dying of these types of cancer. Many women in correctional facilities are underserved because they often have low incomes, little or no health insurance, and no routine health care. In addition to these socioeconomic factors, free breast and cervical cancer screenings are not readily available in most jails.

### Evidence That Prevention Works

Through collaborative efforts by federal and state government agencies and nonprofit organizations, the disparities that exist in cancer prevention and control for women who are uninsured or underinsured can be reduced. Studies show that early detection of breast and cervical cancer and a comprehensive program, including case management and community collaboration, save lives. Timely mammography screening could prevent 15% to 30% of all deaths from breast cancer among women over the age of 40. Having a Pap test as recommended could prevent nearly all deaths from cervical cancer.

### Program Example

The Indiana State Department of Health Breast and Cervical Cancer Program (BCCP) collaborated with the University of Southern Indiana Nurse Practitioner Program and the Vanderburgh County Jail and Safe House to reach the low-income, uninsured population of incarcerated women and provide them with ongoing access to cancer screenings. BCCP staff members educated women at the Vanderburgh County Jail and Safe House about breast and cervical cancer and enrolled them in the program. A nurse practitioner performed Pap tests on-site for the inmates, and mammography screening was scheduled at a local breast center. Follow-up procedures for abnormal results also were provided. Further partnerships are being pursued with parole offices to help maintain contact and facilitate rescreenings after the women are released from prison.

### Implications

Without this innovative program and the hard work of the outreach workers, this unique population of women would not have received lifesaving early detection services. This program demonstrates the importance of working within special populations to identify both the people and the existing systems that would be most likely to reach them. This program also demonstrates the importance of providing these underserved women with access to routine screening both during and after their incarceration.

### Contact Information

Indiana State Department of Health • Breast and Cervical Cancer Early Detection Program  
2 North Meridian Street • Mailstop 6B-F4 • Indianapolis, Indiana 46204-1964  
Phone: (317) 233-7901 • Web site: [www.in.gov/isdh/programs/bccp/](http://www.in.gov/isdh/programs/bccp/)



## Providing Resources and Support to Breast Cancer Patients Through Community Collaboration

### Public Health Problem

Breast cancer is the second leading cause of cancer death for Missouri women. In Missouri in 2002, an estimated 4,000 women were diagnosed with breast cancer, and 800 died of breast cancer.

### Evidence That Prevention Works

Timely mammography screening could prevent 15% to 30% of all deaths from breast cancer among women over the age of 40. Studies show that early detection is the best protection against breast cancer death. When breast cancer is diagnosed at a local stage, 96% of women still are alive 5 years later. If the cancer has spread regionally, this rate is reduced to 78% of women, and if diagnosed after spreading to distant sites, the 5-year survival rate is reduced to 21%.


### Program Example

The Missouri Department of Health and Senior Services' Breast and Cervical Cancer Control Program (BCCCP) case managers collaborated with community organizations such as the Breast Cancer Foundation of the Ozarks (BCFO) and the American Cancer Society to provide resources and support for women affected by breast cancer and their families. In one case, the BCCCP case manager acted as a liaison for Susan, a woman diagnosed with breast cancer who needed chemotherapy and a mastectomy. Susan was unemployed and depressed. The case manager helped Susan get in touch with the BCFO, who paid her rent and utilities for 3 months. The American Cancer Society provided a wig and other types of support. Susan has now completed her treatment and is doing well in her own home. She continues to express gratitude to the BCCCP for helping to save her life.

### Implications

The Missouri BCCCP case management service enhances the quality of life of women diagnosed with breast cancer. By educating women on the scope of available services from diagnosis through treatment and recovery, the BCCCP helps increase the number of women who use the program and take advantage of the available diagnostic and treatment services.

# North Carolina



## Addressing Cancer Concerns From a Comprehensive and Family Health-Oriented Perspective

### Public Health Problem

Colorectal cancer is the second leading cause of cancer death among North Carolinians. In 2001, about 1,700 adults in North Carolina died of colorectal cancer. Because people are not participating in routine screenings, only about 35% of colorectal cancers are detected in the curable, early stages.

### Evidence That Prevention Works

The state's 11 years of experience in conducting the Breast and Cervical Cancer Control Program (BCCCP) through local health departments provide a successful model for reducing deaths from cancer by using a comprehensive approach to cancer control. This approach involves integrating and coordinating various cancer control activities at the community level, including public and professional education, early detection services, monitoring, and evaluation.

### Program Example

To address the colorectal cancer control goals included in the state's cancer plan, the North Carolina Division of Public Health's Comprehensive Cancer Unit (CCU) applied "lessons learned" in implementing the BCCCP. The CCU designed a pilot project to conduct colorectal cancer screening in 10 local health departments encompassing 15 counties in diverse regions of the state. This 6-month pilot project conducted during 2000 was partially funded by CDC. The project specifically targeted low-income women with little or no health insurance and raised awareness about the importance of early detection. Already participating in the state's BCCCP, these women were encouraged to participate and to invite their husbands to take advantage of the colorectal cancer screening program. The CCU provided educational materials, an in-service educational program on colorectal cancer for the local staff, fecal occult blood test (FOBT) kits for all participants aged 50 or older, funding for staff time and administrative costs (including transportation), and funds to cover additional diagnostic testing of positive results. Participants received information on colorectal cancer and were offered FOBT kits. A total of 1,478 participants (including more than 240 men) were counseled and offered FOBT kits; 1,226 took the kits home, and 706 (including more than 100 men) completed and returned the test kits. Of these, 148 tests were positive, resulting in 107 successful referrals for follow-up testing. (Some clients declined further testing.) Ten precancerous polyps (three among men) were found, and four cancers (two among men) were diagnosed.

### Implications

This pilot program demonstrates the feasibility of screening in a local health department setting and the potential value of addressing cancer concerns from a comprehensive and family health-oriented perspective. Because of the extensive reach these agencies have in the community, they can be helpful in raising public awareness about the importance of early cancer detection and in encouraging people to use screening programs.

### Contact Information

North Carolina Department of Health and Human Services • Division of Public Health  
1915 Mail Service Center • Raleigh, North Carolina 27699-1915  
Phone: (919) 733-708 • Web site: [www.dhhs.state.nc.us/dph](http://www.dhhs.state.nc.us/dph)



## Improving Data Collection for a Comprehensive Cancer Control Program

### Public Health Problem

In the process of gathering data for program planning, the Texas Comprehensive Cancer Control Coalition (TCCCC), working with the Texas Department of Health, recognized various gaps and deficiencies in cancer data for the state. In part, these gaps were a result of outdated registry software systems and the lack of specific case reporting requirements in the state registry regulations.

### Evidence That Prevention Works

Data collected by state central cancer registries enable public health professionals to better understand and address the cancer burden. Cancer data are used to determine cancer patterns among various populations, monitor trends over time, and advance research.

### Program Example

The TCCCC facilitated a review of the various cancer data resources for Texas, as well as the processes and systems involved in collecting data. This review resulted in the publication of *Information Management Enhancements to Improve Texas Cancer Data for Comprehensive Cancer Control*. This publication and a companion report (*The Cost of Cancer in Texas*) also produced for the Coalition were critical resources used by the Coalition to document the extent of the data problems. More importantly, the Texas Cancer Council, the Texas Medical Association, the American Cancer Society Texas Division, and other Coalition members used these reports to educate the health commissioner and state legislators about the need for changes in the rules governing cancer-reporting regulations and for improvements in the state's data management systems. The Texas State Legislature subsequently passed a bill (effective September 1, 2001) that updates the state's cancer registry law. This legislation requires reporting of cancer cases to the state central cancer registry by physicians, dentists, and outpatient facilities, including surgical centers. It also strengthens the language that requires hospitals and other reporting facilities to reimburse the Texas Department of Health for the costs of identifying or documenting unreported cancer cases. The Texas Department of Health also asked legislators for increased funding for the cancer registry and other health registries to purchase updated computer software in order to process data more efficiently.

### Implications

Improved coordination of cancer control activities, including monitoring, is a key benefit of comprehensive cancer control planning. Passing this bill is an important first step in addressing the problem of incomplete cancer data. This effort by the TCCCC demonstrates the potential health agencies and organizations have to mobilize collective support for a statewide cancer monitoring system.



## Providing Vital Cancer Screening Programs to Women Who Face Special Barriers to Accessing Health Services

### Public Health Problem

In 2002, an estimated 400 women were diagnosed with breast cancer, and approximately 100 women died of breast cancer in Vermont. About 40 women in Vermont were diagnosed with cervical cancer in 2002.

### Evidence That Prevention Works

Early detection cancer screening services need to be available and accessible to all women. Studies show that early detection of breast and cervical cancer and a comprehensive follow-up program save lives. Timely mammography screening could prevent 15% to 30% of all deaths from breast cancer among women over the age of 40. Having a Pap test as recommended could prevent nearly all deaths from cervical cancer.

### Program Example

A CDC-supported program, Ladies First, is Vermont's Breast and Cervical Cancer Screening Program. This program makes special efforts to reach out to women with special needs (e.g., women who are blind, hearing impaired, in wheelchairs) who face special barriers to accessing health care services. Ladies First has been a big help for Natalie, who is blind. The program helped her fill out the necessary forms to get screened for breast and cervical cancer, helped her choose a doctor, and made certain she got to her appointment. Ladies First also provided Natalie with an audiotape of all the available educational materials on breast and cervical cancer. The program also provides educational materials in alternative formats, including brail and large type print. Ladies First recently purchased wheelchair-accessible examining tables for 10 hospitals throughout the state and for one correctional facility to help ensure that disabled women get thorough exams. Often, the typical exam table is too high and not wheelchair accessible.

### Implications

Through practical steps like these, Ladies First works hard to make sure women like Natalie have access to vital health information and cancer screening services. Since its launch in 1995, the Vermont Department of Health has provided cancer screening and diagnostic services to 6,000 Vermont women through its Ladies First program, many of whom benefitted from special services for women with disabilities. As a result of Ladies First screening efforts, 70 cancers have been detected, most in the earliest, most treatable stage. This program demonstrates the importance of reaching uninsured and underinsured women and women who face physical challenges in a way that addresses their particular needs.

### Contact Information

Vermont Department of Health • Chronic Disease Program  
108 Cherry Street • Burlington, Vermont 05401  
Phone: (802) 863-7331 • Web site: [www.healthyvermonters.info/hs/epi/cdepi/cancer/ladiesfirst/ladiesfirst.shtml](http://www.healthyvermonters.info/hs/epi/cdepi/cancer/ladiesfirst/ladiesfirst.shtml)



## Creating a Native American Women's Wellness Program to Promote Cancer Screening and Education

### Public Health Problem

Cancer is the second leading cause of death for American Indian/Alaska Natives, even though cancer incidence is often lower for this group. Five-year survival rates are significantly lower for racial and ethnic minority populations, in part because of the late stage-at-diagnosis and problems with access to follow-up care. For American Indian/Alaska Native populations in Washington, the age-adjusted breast cancer mortality rate is 28.6 per 100,000, considerably higher than the national rate of 15.0 per 100,000.

### Evidence That Prevention Works

Older women and those from culturally or geographically isolated communities or racial and ethnic minority groups (including Native American/Alaska Native women) are priority populations for the National Breast and Cervical Cancer Early Detection Program. Within these populations, public health providers should involve the community and open the lines of communication to build an environment of trust.

### Program Example

With support from Avon and the Susan G. Komen Foundation, the South Puget Intertribal Planning Agency's Native Women's Wellness Program hired outreach workers in 2000 in the five tribal communities in Washington State. The program has five American Indian outreach workers and five tribal health care providers (one for each tribe) to encourage women to use available health services. Because they are highly respected and well known in their communities, the American Indian outreach workers have built a level of trust with the women in their communities. This rapport has enabled outreach workers to better educate and encourage the women to take advantage of the health services that are offered to them. They also have increased turnout rates by providing incentives, holding special events such as mother and daughter teas, and offering transportation and day care to make it easier for the women to be screened. In 2000, only 136 women were newly enrolled. In 2001, after hiring American Indian outreach workers, the number of newly enrolled women almost doubled to 251. In 2001, the program delivered the highest number of services in its history: 1,218 Pap tests, mammograms, and clinical breast exams combined. Since its inception, the South Puget Intertribal Agency's Native Women's Wellness Program has provided 1,600 mammograms, 2,330 clinical breast exams, and 2,473 Pap tests.

### Implications

Without this program, late diagnoses of breast and cervical cancer would have continued in this population that faces higher than average cancer death rates. This outreach program demonstrates the importance of identifying the right community leaders who can help influence the behaviors within a special population.

# Cancer Registries







## Surveying Farmworkers to Identify Variations of Cancer Incidence Among Hispanic Populations

### Public Health Problem

Farmworkers are exposed to a variety of potentially toxic substances that are used in agriculture, and many of these farmworkers live near their workplaces or consume the products they help produce. Most studies of farmers have focused on those in the Midwest who work on highly mechanized farms; however, large numbers of Hispanic farmworkers are employed in labor-intensive operations and may experience more direct exposure to agricultural chemicals. Additional information is needed to understand the possible health consequences of such exposures among Hispanic farmworkers—including their potential risks for cancer.

### Evidence That Prevention Works

Information derived from statewide, population-based cancer registries enables public health professionals to understand and address cancer in a more effective way. Specifically, this information helps them identify cancer patterns among various populations and determine whether prevention measures and screening make a difference.

### Program Example

From 1987 to 1999, the California Cancer Registry (CCR) conducted a study to evaluate the incidence of cancer among members of the United Farmworkers of America (UFW), a largely Hispanic farmworkers' labor union in California. In this electronic data linkage project, information from the CCR was linked with a membership roster of the UFW to determine whether risks for specific cancers were higher or lower among UFW members than among the overall California Hispanic population. The results of the study showed that the risk for leukemia, stomach, cervical, and uterine cancers was higher among UFW members. Members of the UFW also were at a later stage of disease at diagnosis than were other California Hispanics for most major cancers except for breast cancer.

### Implications

The use of high-quality cancer registry data has been pivotal in identifying variations in cancer incidence among specific populations. As a follow-up to the UFW study, additional research is planned to examine which pesticides were used and how long farmworkers were exposed to each of them. This study will help determine whether specific occupational exposures are associated with cancer. Similar occupational studies have identified chemical carcinogens and have provided direction for prevention activities to reduce or eliminate cancer-causing exposures in the workplace and elsewhere.

### Contact Information

California Cancer Registry  
1320 E. Shaw Avenue, Suite 160 • Fresno, California 93710  
Phone: (559) 222-9272 • Web site: [www.ccrca.org](http://www.ccrca.org) or [www.dhs.ca.gov](http://www.dhs.ca.gov)



## Conducting a Surveillance Program to Understand the Burden of Cancer on the Medicaid Population

### Public Health Problem

In 2002, cancer killed an estimated 19,800 people in Michigan, and another 45,800 new cases of cancer were diagnosed in the state. Many racial and ethnic minority groups, people with low incomes, and those living in rural areas not only suffer disproportionately from cancer, but also must cope with limited access to prevention and treatment services.

### Evidence That Prevention Works

Because the burden of cancer is not the same for all communities, the use of high-quality cancer registry data is critical in identifying variations in cancer incidence among specific populations.

### Program Example

In a Michigan data-linkage project, information from three statewide databases—the Cancer Registry, Medicaid enrollment files, and death certificate files—was examined to identify disparities in cancer deaths among minority and low-income populations. This study was designed to examine the differences in stage-of-disease at the time of diagnosis and the subsequent survival rates of patients considered medically underserved compared with the remaining population of cancer patients in Michigan. The analysis focused on female breast, cervical, lung, prostate, and colon cancers. The study, published by the American Cancer Society, showed that low-income populations have a greater incidence of cancer. It also demonstrated that a greater proportion of low-income people with cancer are African American and that they are more likely to be diagnosed at younger ages (less than 65 years) for both colon and breast cancers but less likely to be diagnosed at older ages (older than 65 years) for cervical cancer. For the five disease sites, low-income people younger than 65 years were more likely to be diagnosed with late-stage disease and were more likely to die of the disease. The Medicaid population younger than 65 years was at greater risk of being diagnosed with late-stage disease than was the non-Medicaid population. For breast and lung cancers, older Medicaid patients also were at greater risk of dying of these diseases compared with non-Medicaid patients.

### Implications

This data linkage project, funded in part by a comprehensive cancer control grant, is the first of a series of reviews of the burden of cancer on the Medicaid population. Findings from this study highlight the need for effective cancer screening efforts among low-income populations. Michigan has established a Medicare-Medicaid Policy Advisory Committee to review the health issues that were raised as result of this study, and county-specific information is being used to identify areas where screening efforts should be increased, especially for breast and colon cancers.



## Developing a Comprehensive, Web-Based Information Resource to Monitor Cancer Incidence

### Public Health Problem

In 2002, cancer killed an estimated 12,300 people in Missouri, and another 28,600 new cases of cancer were diagnosed in the state. The burden of cancer is not the same for all communities, which means that programs must be tailored to address problems where they exist, using appropriate strategies to target specific communities.

### Evidence That Prevention Works

Complete, timely, and high-quality data are essential for conducting research and responding to public concerns about cancer incidence in their communities. This information helps identify cancer patterns among various populations and determines whether prevention measures and screening make a difference.

### Program Example

The Missouri Cancer Registry, in collaboration with the state's Center for Health Information Management and Evaluation, developed a unique cancer information resource for citizens, health professionals, researchers, and policy makers: Missouri Information for Community Assessment (MICA). MICA is an innovative Web-based system that allows users to access health information, including cancer statistics from the state cancer registry and health risk factor information from the Behavioral Risk Factor Surveillance System. The cancer MICA system allows users to create tables showing cancer incidence by year, age, sex, race, cancer site, cancer stage, cancer grade, and the geographic location of cancer patients at the county level. This user-specific information can then be downloaded to other applications to produce maps, charts, or graphs so people can understand the overall effect that cancer has on the state.

### Implications

The availability of high-quality cancer registry data and information about health behaviors and risk factors is essential to identifying and monitoring trends in cancer incidence and deaths. This type of information also is critical to researching, planning, and evaluating cancer prevention and control efforts. Missouri's MICA is a new way of providing partners and the public with information about cancer and its associated risk factors. The MICA Web-based system can serve as a model for other states as an effective way to provide and encourage the use of data collected through the state's central cancer registry and to integrate cancer-related data into health planning activities.

### Contact Information

Missouri Department of Health and Senior Services  
P.O. Box 570 • Jefferson City, Missouri 65102  
Phone: (573) 522-2880 • Web site: [www.dhss.state.mo.us](http://www.dhss.state.mo.us)



## Using Cancer Registry Data to Identify and Better Serve Diverse Populations

### Public Health Problem

In New Jersey in 2002, an estimated 6,900 women were diagnosed with breast cancer, and an estimated 1,400 women died of breast cancer.

### Evidence That Prevention Works

When breast cancer is diagnosed at a local stage, 97% of women still are alive 5 years later. The 5-year survival rate decreases to 21% when the disease is diagnosed after it has spread to other sites. Routine mammography screening is an especially effective means of detecting breast cancer at the earliest stages.


### Program Example

The New Jersey State Cancer Registry (NJSCR) devised a study to identify, map, and characterize areas of New Jersey with significantly high proportions of advanced-stage breast cancer using a Geographic Information Systems (GIS) analysis and SaTScan (a statistical tool). Two areas in northeastern New Jersey were identified by this method as having unusually high proportions of late-stage breast cancer. Census data provided demographic information that allowed the populations in these two areas to be compared with the rest of the state. Analysis showed that the populations in these two areas were more likely to be black, Hispanic, and foreign-born and to speak a language other than English in the home. Over 90% of the women diagnosed with breast cancer, however, lived within 2 miles of a mammography screening center. Study results were shared with the New Jersey Cancer Education and Early Detection Program, which offers cancer screening services to underserved populations. Additional screening resources that were funded by CDC and the state have been directed to these areas. Particular initiatives include providing culturally sensitive screening information in a variety of languages such as Spanish, Polish, and Arabic.

### Implications

New Jersey has a large and diverse population, and targeting public health resources in that state is a complex task; however, by using registry data and GIS analysis, specific intervention areas were identified. This project is an excellent example of science-driven public health decision making that addresses the problems of cancer prevention and control. The NJSCR plans to use this type of analysis to help guide decision making for disease control for other cancers such as cervical, colorectal, skin, and prostate.

# North Carolina



## Demonstrating Effective Partnership and Collaboration Between Research Institutions and Cancer Registries

### Public Health Problem

Breast cancer is the second most commonly diagnosed cancer and the second leading cause of cancer-related deaths among women in the United States. In 2002, an estimated 1,200 women in the United States died of breast cancer, and approximately 5,900 new cases were diagnosed.

### Evidence That Prevention Works

Since the late 1970s, major advances have occurred in detecting and treating breast cancer; however, there is much that the health community does not know about the different types of breast cancer, the complexities surrounding risk factors, and causes of this disease. To control this disease, lessen its impact on thousands of American women each year, and address differences among racial and ethnic groups in breast cancer incidence and deaths, more research is needed. Information derived from statewide, population-based cancer registries enhances such research efforts.

### Program Example

Data from the North Carolina Central Cancer Registry were used in two special research projects at the University of North Carolina Lineberger Comprehensive Cancer Center. The Carolina Breast Cancer Study (CBCS) and the Carcinoma Study are multiyear, population-based, case-control studies designed to discover new risk factors for breast cancer. As part of the Specialized Program of Research Excellence (SPORE), the National Cancer Institute funds both studies. The CBCS examined invasive breast cancer and enrolled approximately equal numbers of African American and white women; half the women were under age 50, and the other half were aged 50 years or older, which meant that the CBCS had sufficient numbers to examine differences in breast cancer incidence and risk by race and age. Participants in the Carcinoma Study had preinvasive breast cancer, and about 20% were African American. Using data from in-depth interviews and biologic samples, these studies examined environmental, behavioral, and genetic risk factors that influence breast cancer development.

### Implications

Increasing the knowledge base for breast cancer through research studies such as the ones conducted at the University of North Carolina Lineberger Comprehensive Cancer Center is essential in reducing the number of deaths from breast cancer in the United States. High-quality cancer data from state central cancer registries are critical to advancing epidemiologic, clinical, and health services research to reduce the burden of breast cancer among U.S. women. Ongoing data-sharing efforts between cancer registries and research institutions will ensure that progress in this important health arena continues.

### Contact Information

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# Diabetes



For more information about CDC's diabetes program,  
visit <http://www.cdc.gov/diabetes/index.htm>





## Implementing an Outreach Network and Control Program to Prevent or Delay the Onset of Diabetes

### Public Health Problem

In 2000, the estimated number of adults in Michigan diagnosed with diabetes was 491,000, or 6.7% of Michigan's adult population. In addition, 574,800 Michigan adults aged 40–74 have prediabetes or impaired glucose tolerance (IGT). In 2000, diabetes was the sixth leading cause of death for Michigan residents. Diabetes-related medical care in Michigan exceeded \$2.9 billion, with 60% of these costs attributed to hospitalization.

### Evidence That Prevention Works

Multiple national and international studies have established the effectiveness of diabetes care improvement and patient self-management in reducing and delaying the onset of blindness, the need for foot or lower-extremity amputations, kidney disease, and many other diabetes outcomes. Recent diabetes prevention clinical trials have clearly demonstrated that among those with prediabetes, diabetes onset can be prevented or significantly delayed through modest improvements in nutrition, weight control, and exercise levels.

### Program Example

The Michigan Diabetes Outreach Network (MDON) is composed of six regional Diabetes Outreach Networks. As part of this program, the networks have a Diabetes Care Improvement Project and work with over 150 agencies in the state. The agencies include physician offices, community health centers, home care agencies, state certified diabetes self-management education programs, and a range of other health care providers. The networks collaborate with the agencies to ensure that people with diabetes receive care according to current American Diabetes Association (ADA) clinical practice recommendations. Data are collected during the initial patient visit and follow-up appointments to determine how to improve care. The data through 2001 for A1C monitoring, foot exams, and microalbuminuria (kidney disease) assessments (all done at least once annually) show a significant improvement in the number of people with diabetes who have these tests done. In 2001, A1C tests increased from 14% in 1996 to 78%, and foot exams increased from 58% in 1996 to 77%. Microalbuminuria tests were added to the data system in 2000 and increased from 22% to 28% in the number of people tested between 2000 and 2001. MDON clients also reported significantly improved physical activity levels and nutritional planning.

### Implications

Results from MDON demonstrate that working with health care agencies and providers through a statewide Diabetes Care Improvement Project can improve outcomes for people with diabetes. This program demonstrates that a regional network can play an effective role in helping to assure that all care provided to clients is based on ADA clinical practice recommendations.

### Contact Information



## Establishing a Community-Based Diabetes Coalition to Reach Rural Populations Through Public-Private Collaboration

### Public Health Problem

An estimated 276,000 Minnesotans have diabetes; however, many people with diabetes do not receive recommended preventive care services and self-management education to help prevent diabetes complications.

### Evidence That Prevention Works

Studies demonstrate that intensive preventive care, controlling blood glucose levels, improved nutrition, and increased drug therapy compliance significantly reduce adverse diabetes outcomes such as premature death, blindness, kidney failure, or lower-extremity amputations.

### Program Example

Using CDC funding, the Minnesota Diabetes Prevention and Control Program partnered with two community-based coalitions in rural counties to develop and test a public-private collaboration called the Diabetes Community Collaboration Program (DCCP). The DCCP brought together potentially competing groups of diabetes stakeholders, including local public health agencies, private health care organizations, and community groups, to identify and address common goals for diabetes care and education. The coalitions planned, implemented, and evaluated a broad range of activities in their communities for people with diabetes, the general public, health care systems, and health care providers. One coalition developed a community diabetes registry that is used for monitoring diabetes care, providing ongoing diabetes education, and reminding registrants to obtain needed health care services. Both coalitions have expanded educational opportunities for people with diabetes by providing ongoing diabetes education through local media, community events, formal education, and support groups. Each coalition has created opportunities for health care providers to receive updates about the standards of diabetes care through professional education workshops. The coalitions' efforts resulted in diabetes care improvements in the local clinics between 1995 and 2000. Clinic patient chart audit data showed that A1C testing increased by 82% in Rice County and by 300% in northern Koochiching County. Kidney function testing rose by 80% and 400%, respectively; median A1C levels decreased by 9.4% and 17%, respectively. Lipid levels also shifted from higher to lower risk categories.

### Implications

The DCCP diabetes coalitions created community networks, improved diabetes care, increased education among diabetes patients to empower them to advocate for their own care, and improved diabetes education among health care professionals and providers. This program is an example of how the Diabetes Today community model can be implemented within a local health care system to increase coordination, collaboration, and resource sharing to reduce the burden of diabetes.



## Establishing a Diabetes Collaborative to Implement the Chronic Care Model and Monitor Available Health Services

### Public Health Problem

Diabetes-related care for high-risk, medically underserved, and racially/ethnically diverse populations must be improved to decrease health disparities and prevent serious diabetes complications. In 2001, an estimated 6.5% of adult Missourians (about 276,453 persons) reported physician-diagnosed diabetes.

### Evidence That Prevention Works

Studies have shown that by providing better access to preventive care, diabetes-related outcomes such as blindness, kidney failure, and lower-extremity amputation can be prevented or delayed.

### Program Example

The Missouri Diabetes Prevention and Control Program (MDPCP) collaborated with six federally qualified health centers (FQHCs) and one National Health Service site that participated in the Bureau of Primary Health Care's National Health Disparities Diabetes Collaborative. From June 2000 to June 2002, each center implemented the Chronic Care Model in one or more clinics, forming teams of diabetes-related health care specialists. Each center established an initial "population of focus," a registry of patients with diabetes. Additional provider or site registries were added as the project period progressed. The Diabetes Electronic Measurement System (DEMS) was used to monitor indicators of health status, health behaviors, and services received. The MDPCP's second-year evaluation of aggregate data from the combined diabetes registries of the seven Missouri health centers participating in the Diabetes Collaborative found that the number of patients enrolled in the Diabetes Collaborative increased from 1,107 to 3,431, or by 210%. In the aggregate registries, there were significant improvements in the prevalence of 10 key measures: (1) average A1C value (-3%), (2) retinal eye exam (+197%), (3) dental exam or referral (+325%), (4) foot exam (+18%), (5) influenza vaccination or referral (+149%), (6) cholesterol testing (+37%), (7) body mass index calculation (+15%), (8) diabetes education (+78%), (9) self-management goal setting (+24%), and (10) nutrition counseling (+92%).

### Implications

In Missouri, the health centers' participation in the Midwest Cluster of the National Diabetes Collaborative made and sustained substantial improvements in the quality of care for their patients with diabetes. Future efforts should focus on maintaining and improving these gains while extending their benefits to other Missourians with diabetes. This program demonstrates the importance of team delivery of comprehensive health care and increasing patients' participation in the management of their diabetes.

### Contact Information

Missouri Department of Health and Senior Services • Missouri Diabetes Control Program  
920 Wildwood Drive • P.O. Box 570 • Jefferson City, Missouri 65102-0570  
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## Forging Partnerships to Reach Disparate Populations: Indian Health Service, Urban, and Tribal Diabetes Programs

### Public Health Problem

The prevalence of diagnosed diabetes is 12% among adult Montana American Indians in Montana, which is approximately two times higher than among non-Indian adults. Indian Health Service, urban, and tribal diabetes programs face many challenges in providing quality care to their diabetes patients as well as in implementing diabetes prevention activities because of the large number of American Indians with diagnosed diabetes and the geographic remoteness of the reservations in Montana.

### Evidence That Prevention Works

Recent primary prevention studies have demonstrated that weight loss and regular physical activity can delay the onset of diabetes among people at high risk of developing the disease. Similarly, the results from secondary prevention trials indicate that intensive management of diabetes can prevent the development of serious diabetes-related complications.


### Program Example

Beginning in 1997, the Montana Diabetes Prevention and Control Program (DPCP), the Billings Area Indian Health Service (IHS) diabetes program, the urban Indian program, and each of the tribal and IHS diabetes programs developed an effective collaborative partnership to identify and reduce the burden of diabetes among American Indians in Montana. Specifically, this partnership has addressed community-based health systems, health communications strategies, and surveillance, including establishing a surveillance system to monitor trends in diabetes prevalence and the quality of care among American Indian youth. Through this partnership, epidemiologic support was provided to assist diabetes coordinators in summarizing information from their ongoing school screening programs to assess diabetes risk among youth and assess trends in preventive services and clinical outcomes. A software system also was developed to support a community-based project between the University of Montana and the Salish and Kootenai tribes to improve physical activity and nutrition among American Indians at risk for diabetes.

### Implications

These unique collaborative efforts combine the resources, expertise, and “people-power” of the tribal and IHS diabetes programs and the state DPCP to reduce the burden of diabetes in Montana. The surveillance, community-based health systems, and health communications strategies will enable the tribal and IHS diabetes programs to monitor trends in diabetes among their young people, evaluate the effectiveness of their diabetes prevention activities, and identify opportunities to improve care for their patients with diabetes.

# North Carolina



## Establishing Self-Management Diabetes Education Programs to Reach Special Populations

### Public Health Problem

Diabetes places a tremendous health burden on the citizens of North Carolina. An estimated 584,000 people have diabetes in North Carolina, and one third of these people probably do not know they have the disease. From 1995 to 2000, the prevalence of diagnosed diabetes in the adult population increased by 42% (from 4.5% to 6.4%); this percentage translates to about 389,000 people with diagnosed diabetes in North Carolina.

### Evidence That Prevention Works

Research, such as the National Institutes of Health's Diabetes Control and Complications Trial, confirms that people with diabetes can drastically reduce their risk for serious complications by controlling their blood glucose levels and following recommended screening guidelines so complications can be detected early. Up to 90% of diabetes-related blindness and over 50% of diabetes-related lower-extremity amputations and kidney failures are preventable.

### Program Example

A CDC-sponsored program, Project DIRECT (Diabetes Interventions Reaching and Educating Communities Together), focuses on the African American community in Southeast Raleigh. Project DIRECT offers a comprehensive approach to prevention and works to reduce the risk factors for diabetes (by promoting increased physical activity and improved dietary practices) and to increase overall awareness of diabetes and its risk factors and complications. Project DIRECT also works to increase the number of people at high risk who are screened for diabetes and to increase the number of people with diagnosed diabetes who receive regular diabetes care. In its first year, Project DIRECT increased the number of diabetes patients who received foot care counseling and foot exams from approximately 20% to 50%. Patient chart audits also have shown increased numbers of people with diabetes who monitor their blood glucose levels at home; participate in diabetes education; monitor their A1C levels; and get ophthalmology referrals, microalbuminuria (kidney disease) assessments, and vascular exams.

### Implications

Project DIRECT demonstrates that significant changes in the preventive care practices of health care providers can lead to overall improvements in care and can reduce the devastating complications of diabetes. Diabetes self-management education can provide special populations, such as the African American community that was reached through Project DIRECT, with some of the necessary tools to manage their diabetes more effectively.

### Contact Information

North Carolina Department of Health and Human Services  
Mailservice 1915 • Raleigh, North Carolina 27699-1915  
Phone: (919) 725-3131 • Web site: [www.ncdiabetes.org](http://www.ncdiabetes.org)



## Working With Health Care Providers to Implement Care Management Strategies to Ensure Appropriate Diabetes Testing

### Public Health Problem

Utah residents with diabetes are not receiving health care services recommended by the American Diabetes Association (ADA), such as A1C tests and eye exams. Data collected from health plans in Utah showed that although 77% of the commercial health plan members with diabetes had received at least one A1C test in the preceding year, only 23% had levels below 7%, and only 42% had levels below 8%. In the Medicaid health plans, the percentages were 78% tested, 26% below 7%, and 44% below 8%.

### Evidence That Prevention Works

Results from the Diabetes Control and Complications Trial and the United Kingdom Prospective Diabetes Study have shown that maintaining near normal blood glucose levels (at or below 7%) could significantly reduce diabetes complications. Other studies have shown that regular eye exams and tests for kidney function can prevent or delay diabetic eye disease and kidney failure.

### Program Example

To help meet the recommended standards of care for people with diabetes, the CDC-funded Utah Diabetes Prevention and Control Program convened a group of nine health plans to develop, implement, and evaluate care management strategies. The health plans matched members with diabetes to their most likely primary care provider and determined whether the members had received the recommended screening tests by using HEDIS measurements. Members received a personal profile of their screening test history and information on the recommended tests and their frequency, their health plan's policy for reimbursement for each test, and an incentive for getting an eye exam (e.g., a 60-minute telephone calling card). After the program was implemented in March 2000, participating health plans collected HEDIS data on diabetes-related screening tests from 3,000 patient charts to evaluate the intervention. The results, although not exclusively attributed to the intervention, were significant. A1C testing for commercial and Medicaid plan members increased 12.5% to 86% and 1.5% to 79%, respectively. Commercial plans increased the percentage of patients with A1C levels below 7% to 33% (a 40% increase); the percentage below 8% increased to 53% (a 25% increase). For the Medicaid plans, there were also improvements in A1C levels among patients (by 19% for those below 7% and by 18% for those below 8%). The percentage of documented eye exams improved for both commercial (by 18% to a level of 47%) and Medicaid (by 5% to a level of 48%) plans.

### Implications

This program demonstrates that testing to detect eye and kidney disease early and monitoring A1C levels can be increased substantially by direct health plan involvement. Preventing severe vision loss and halting the progression of kidney disease alone could significantly improve the quality of life of many people with diabetes and save millions of dollars in medical costs.





## Improving Diabetes Care in Community Health Centers Through a Statewide Collaborative

### Public Health Problem

Of the 217,000 Washington residents who are diagnosed with diabetes, 20% to 48% of them have extremely high blood sugar measurements. In 1999, diabetes was associated with 56,485 hospitalizations in Washington at a cost of \$671 million. Many of these hospitalizations could have been prevented through early detection and appropriate diabetes management, including blood sugar control.

### Evidence That Prevention Works

Prevention of elevated blood sugar can dramatically prevent other health problems for people with diabetes and potentially reduce health care costs. A systematic and collaborative approach to shift the medical care delivery system to a chronic care focus can improve blood sugar levels and other diabetes indicators in patients who participate in primary care organizations.

### Program Example

The Washington State Department of Health Diabetes Prevention and Control Program and Qualis Health (a Medicare Quality Improvement Organization) sponsored the Washington State Diabetes Collaboratives (WSDC) I and II. WSDC I and II are quality improvement projects for primary care practices to improve health outcomes for people with diabetes. Seventeen practice teams and 10 health plans participated in WSDC I, and 30 practice teams and 7 health plans participated in WSDC II. Teams established a registry to track their patients with diabetes and test and implement changes in their practice using the Chronic Care Model as a framework. The Washington State Diabetes Prevention and Control Program developed the Diabetes Electronic Management System (DEMS) and provided this tracking system and technical assistance to participating clinics free of charge. After a 13-month intensive phase, the Diabetes Prevention and Control Program and Qualis Health continue to provide services and encouragement to support the clinical practice teams continuing their work. Some of these services include maintaining an active E-mail list for team members to consult their peers, providing aggregate quarterly reporting to give teams a statewide benchmark, providing ongoing DEMS registry support, and training new staff. Among 981 patients, blood sugar levels decreased on average by approximately 10%, and the prevalence of patients who had extremely high blood sugar levels decreased from 24% to 17%.

### Implications

The Washington State Diabetes Collaboratives are producing results and demonstrate that this state Diabetes Prevention and Control Program can play a critical role in improving diabetes care.

### Contact Information

Washington Department of Health • Diabetes Prevention and Control Program  
7211 Cleanwater Lane, Building 13 • P.O. Box 47836 • Olympia, Washington 98504-7836  
Phone: (360) 236-3680 • Web site: <http://www.doh.wa.gov>



## Establishing Statewide Guidelines and Promoting Provider Collaboration to Reduce the Burden of Diabetes

### Public Health Problem

In 2000, an estimated 326,000 adults in Wisconsin had diabetes. This estimate includes both diagnosed and undiagnosed diabetes. In 2000, there were 78,790 diabetes-related hospitalizations in Wisconsin, costing more than \$1.03 billion.

### Evidence That Prevention Works

National and international studies have shown that improved diabetes care and patient self-management can delay blindness, lower-extremity amputations, kidney disease, and other adverse outcomes in people with diabetes. Recent diabetes prevention clinical trials clearly have demonstrated that, among those with prediabetes, the onset of diabetes can be prevented or delayed significantly through modest improvements in nutrition, weight control, and exercise levels.

### Program Example

In 1998, the Wisconsin Diabetes Advisory Group (DAG) developed and published *Essential Diabetes Mellitus Care Guidelines* as a way of improving diabetes care through health care providers and health systems. Over 70% of Wisconsin's licensed health maintenance organizations (HMOs) adopted or adapted these guidelines. The Wisconsin Diabetes Prevention and Control Program, in partnership with the University of Wisconsin Department of Population Health Sciences, members of DAG, and state HMOs developed the Wisconsin Collaborative Diabetes Quality Improvement Project. Broadly, the Collaborative Project's strategic goals include evaluating the implementation of the *Essential Diabetes Mellitus Care Guidelines*; sharing resources, population-based strategies, and best practices among collaborators; and improving diabetes care through collaborative quality improvement initiatives. Aggregate data from the project's third-year evaluation show that the Wisconsin collaborators performed at a level that exceeded the National Committee on Quality Assurance (NCQA) regional and national averages on each of the six diabetes measures (A1C monitoring, A1C control, LDL-cholesterol screening, LDL-cholesterol control, eye exams, and kidney disease screening). Additionally, the majority of Wisconsin's HMOs currently participate in the project. The collaborators also initiated a statewide quality improvement intervention to increase eye exams and improve reporting of exam results and recommendations.

### Implications

This program demonstrates the importance of promoting collaboration to share best practices and effective strategies that lead to quality interventions to improve diabetes prevention and control measures.



# Healthy Mothers, Healthy Babies



For more information about CDC's reproductive health program,  
visit <http://www.cdc.gov/nccdphp/drh/index.htm>



## Saving the Lives of Infants in Florida: The Back to Sleep Campaign

### Public Health Problem

In Florida in 1996, an unusually large number of babies were dying of sudden infant death syndrome (SIDS). Florida PRAMS data indicated that only 25% of infants were put to sleep on their backs (28% white and 15% African American).

### Evidence That Prevention Works

For more than a decade, CDC has worked with state and local health departments and others to detect deaths and health problems among pregnant women and infants, determine the causes of these problems, and develop solutions. A critical part of this effort is CDC's state-based Pregnancy Risk Assessment Monitoring System (PRAMS), which collects data on the health of infants and health and health-related behaviors of pregnant women and new mothers. Research indicates that putting infants to sleep on their backs or sides rather than on their stomachs can decrease their risk of dying of SIDS.

### Program Example

In response to the PRAMS data, the Northeastern Florida Healthy Start Coalition launched a "Back to Sleep" educational campaign targeting health care professionals and new parents. Students from Jacksonville University assembled packets of educational materials about placing infants on their backs to sleep. The packets were distributed to day care centers and hospitals in the region for training programs for nurses. Activities focused on parents included distributing baby T-shirts with the "Back to Sleep" logo on the back. Following this campaign, 1998 PRAMS data indicated that 56% of infants were placed on their backs in northeast Florida (64% white and 43% black) compared with 37% of infants statewide (42% white and 21% black). In addition, the SIDS death rate in the region decreased from 1.2 deaths per 1,000 live births in 1997 to 0.74 deaths per 1,000 in 1998.

### Implications

The Northeastern Florida Healthy Start Coalition continues to use PRAMS data to monitor infant sleeping position. The coalition is now refining its education efforts to better reach African American parents to reduce racial disparities in SIDS. By detecting health problems among mothers and babies and by sharing results from programs like these, PRAMS is helping chart the course for maternal and infant health in the United States.

### Contact Information

Florida Department of Health • Family Health Services  
4052 Bald Cypress Way, Bin A-13 • Tallahassee, Florida 32399-1723  
Phone: (850) 245-4404 • Web site: <http://www.doh.state.fl.us/>



# Oklahoma

## Promoting Healthy Youth Behaviors to Reduce Teen Pregnancy: A Community Partnership Approach

### Public Health Problem

In 2000, Oklahoma had a teen birth rate well above the United States average, ranking 13<sup>th</sup> in the birth rate among young women aged 15 to 19 years. Some Oklahoma City neighborhoods experience a teen birth rate *three to four times* the national average.

### Evidence That Prevention Works

Research suggests that linking teen pregnancy prevention programs with youth development efforts shows promise in addressing the antecedents of teen pregnancy and reducing adolescent risk-taking behaviors.

### Program Example

Funded by CDC and coordinated by the Oklahoma Institute for Child Advocacy, the *HEART of OKC* (Healthy, Empowered And Responsible Teens of OKC) was one of 13 teen pregnancy prevention projects that were part of a community capacity-building initiative. From the outset, the *HEART of OKC* focused on changing adult views of youth from negative, deficit-based perspectives to strength-based perspectives that promoted increasing specific protective factors—*youth assets*—while also reducing health risk behaviors that lead to the onset of early sexual activity. From the beginning, community partners agreed that the purpose of the project was to change the perspective of community leaders and other adults so that they recognized young people as potential to be nurtured, not problems to be fixed. The *HEART of OKC* emphasized a blending of science-based principles, promising approaches, and best practices. The project interventions engaged diverse groups of young people in leadership and service-learning opportunities with a range of community partners from Home Depot to the Junior League to central city congregations. As a result, new partnerships, promising new program models, and a new attitude of working “with and through youth,” not doing things “to and for youth,” has emerged. In addition, the project coordinators developed a youth survey and conducted 1,300 pairs of interviews with teens and adults.

### Implications

Organizations that have not traditionally worked together are collaborating to help each other develop resources, implement joint programs, and effectively refer youth and parents to appropriate programs and services. This project demonstrates the importance of a collaborative approach and demonstrates the need for community-driven projects.



## Implementing a Pilot Program to Promote Smoking Cessation During and After Pregnancy

### Public Health Problem

In 1994, nearly 18% of Washington State women smoked during pregnancy, and approximately 70% of these women were covered by Medicaid. The smoking rate of women increased to nearly 25% of women after pregnancy.

### Evidence That Prevention Works

Research indicates that smoking during pregnancy contributes to adverse birth outcomes, such as spontaneous abortion, stillbirth, fetal death, low birth weight, premature birth, and intrauterine growth retardation. Women who do not smoke or quit smoking have better reproductive health outcomes, and children of nonsmokers and former smokers have fewer health problems than those exposed to tobacco smoke.

### Program Example

The state of Washington created the First Steps program to provide Medicaid-covered health and social services—such as substance abuse education and child birth education—to low-income pregnant women. The Department of Social and Health Services Medical Assistance Administration and the Department of Health Maternal and Child Health Program jointly managed the state program. Data from the Pregnancy Risk Assessment Monitoring System (PRAMS) were used as a catalyst for developing a statewide First Steps tobacco cessation pilot project. Washington used PRAMS county smoking rates for pregnant Medicaid women to determine which First Steps agencies should participate. The project enhanced the interventions offered by First Steps providers and supported smoking cessation during and after pregnancy in an effort to reduce low birth weight rates and infants' exposure to environmental tobacco smoke.

### Implications

PRAMS data were used to guide program planning. Outcome data are being used to develop recommendations for a statewide training program. This program demonstrates the importance of PRAMS data in evaluating changes in smoking cessation rates during pregnancy.

### Contact Information

Washington State Department of Health • Community and Family Health  
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## Promoting a Folic Acid Education Program to Prevent Birth Defects

### Public Health Problem

Data from West Virginia's CDC-supported Pregnancy Risk Assessment Monitoring System (PRAMS) for 1997 showed that 73.9% of women delivering a live-born infant were aware of the benefits of folic acid, but these women did not supplement their diet with a daily dose of folic acid before or during pregnancy.

### Evidence That Prevention Works

Research indicates that 400 milligrams of folic acid taken every day by women of childbearing age can reduce the risk of brain and spinal cord (neural tube) defects by up to 70% when taken before and continued early in pregnancy.

### Program Example

West Virginia used PRAMS data to develop the Folic Acid Education Project, which was conducted from July 1999 to December 1999. The purpose of the project was to increase public and professional awareness about the importance of using folic acid before pregnancy to prevent birth defects of the spinal cord and brain. Information about folic acid and its benefits was distributed to women of childbearing age throughout West Virginia through displays in health clinics and health fairs. A statewide toll-free number was also established to answer questions about the use of folic acid. In McDowell County, a southern rural county in the state, the education project was expanded to include the distribution of multivitamins. Multivitamins were distributed to family planning providers to be given out free of charge to participating women. By the conclusion of the project, 2,500 bottles of multivitamins containing folic acid had been distributed.

### Implications

The folic acid education program may be expanded to increase private health care providers' awareness of the West Virginia Birth Defects Registry, a system established in 1989 to monitor the occurrence of birth defects among the state's children. The program demonstrates the importance of determining the effectiveness of awareness campaigns and the importance of timely and accurate data collection.

# Healthy Youth



For more information about CDC's adolescent and school health program,  
visit <http://www.cdc.gov/nccdphp/dash/index.htm>





## **Implementing a Coordinated School Health Program: One Local School's Success**

### **Public Health Problem**

Florida schools serve 2.7 million students, approximately 20% of whom live in poverty. In 1999, 81% of Florida's youth (aged 10–24 years) did not attend daily physical education classes, 78% did not participate in any moderate physical activity, 74% did not eat the recommended five servings of fruits and vegetables per day, and about half (48%) consumed alcohol during the month preceding survey or had engaged in sexual intercourse (50%).

### **Evidence That Prevention Works**

Health education in schools can reduce the prevalence of health risk behaviors among young people. For example, health education resulted in a 37% reduction in the onset of smoking among 7<sup>th</sup> graders. In addition, obese girls in the 6<sup>th</sup> and 8<sup>th</sup> grades lost weight through a program at school, and students who attended a school-based life-skills training program were less likely than other students to smoke or use alcohol or marijuana.

### **Program Example**

Florida is one of 20 states funded by CDC for coordinated school health programs (CSHPs). CSHPs provide a well-rounded approach to school health that includes health education, physical education, health services, nutrition services, health promotion for staff, counseling/psychological services, a healthy school environment, and parent and community involvement. In Sarasota, the principal of McIntosh Middle School, who was concerned about the impact of health problems on the attendance and performance of students and staff, committed the school to a 3-year state program to establish a CSHP. Using CDC's School Health Index, the school's site-based team assessed the school's resources, developed an action plan, and integrated the CSHP into the school's operations and curriculum. Implementing a CSHP has generated access to additional resources for students and staff, improved school attendance, and increased the percentage of students who scored 3.0 or higher on a state-mandated writing assessment. In addition, the majority of students at McIntosh Middle School are Renaissance members, an honor that requires a grade point average of 3.0 or above and no referrals for discipline. The Florida Department of Education identified McIntosh as a Five-Star School with a state grade of "A," and the department also recognized the school as a "Sunshine State Success Story: Emphasizing Teaching Standards Through Health 2001–2002" for making wellness a cornerstone of its education.

### **Implications**

CSHPs provide a focal point for collaboration and are a good use of resources to improve the health of youth and the adults they will become. These results show how a coordinated school health program improves learning, performance, and health for students and teachers.

### **Contact Information**

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Phone: (850) 488-7835 • Web site: <http://www.firm.edu/doe/index.html>



## **Preventing and Reducing Obesity Through a Coordinated School Health Program, Partner Education, and Collaboration**

### **Public Health Problem**

West Virginia schools serve 301,000 students, approximately 25% of whom live in poverty. In 1999, 69% of West Virginia's youth (aged 10–24 years) did not attend daily physical education classes, 75% did not participate in any moderate physical activity, 80% did not eat the recommended five servings of fruits and vegetables per day, 16% were at risk for obesity, and 12% were obese.

### **Evidence That Prevention Works**

Health education in schools can reduce the prevalence of health risk behaviors among young people. For example, health education resulted in a 37% reduction in the onset of smoking among 7<sup>th</sup> graders. In addition, obese girls in the 6<sup>th</sup> and 8<sup>th</sup> grades lost weight through a program at school, and students who attended a school-based life-skills training program were less likely than other students to smoke or use alcohol or marijuana.

### **Program Example**

Using CDC funds, West Virginia established coordinated school health programs (CSHPs), giving its students the advantages of a well-rounded approach to school health that includes health education, physical education, health services, nutrition services, counseling/psychological services, a healthy school environment, and parent and community involvement. Through a revision of West Virginia's Board of Education Policy, the President's Physical Fitness Test became a school accreditation standard. In each school, 40% of students must pass the test or the school must demonstrate improvement over 3 years. Statewide, the proportion of children passing increased from approximately 5% in 1992 to 40% in 1999. From 1992 to 2000, more than 700 physical education teachers or health teachers received training related to CSHPs. The West Virginia Department of Education (WVDE) also held training sessions for physical educators to introduce the Physical Education Instructional Goals and Objectives and to emphasize lifetime fitness in physical education programs. Partnerships were also established, including the WVDE Office of Healthy Schools, the Office of Child Nutrition, and the West Virginia Nutrition Coalition, which collaborated on the planning and delivery of a week-long nutrition symposium.

### **Implications**

CSHPs provide a focal point for collaboration and are a good use of resources to improve the health of youth and the adults they will become. This program demonstrates the importance of a comprehensive approach to school health. Strong policy helps develop an environment that promotes improved health behaviors, and health education and physical education develop the knowledge, attitudes, and skills students need to engage in healthy eating and physical activity.



## **Preventing and Reducing Obesity Through a Coordinated School Health Program**

### **Public Health Problem**

Wisconsin schools serve 1.2 million students. In 2001, more than half (57%) of Wisconsin's youth (aged 13–18 years) did not attend daily physical education classes. In 2001, 15% were at risk for obesity, 10% were obese, and 88% did not consume the recommended five or more servings of fruits and vegetables on the day before the survey.

### **Evidence That Prevention Works**

Health education in schools can reduce the prevalence of health risk behaviors among young people. For example, health education resulted in a 37% reduction in the onset of smoking among 7<sup>th</sup> graders. In addition, obese girls in the 6<sup>th</sup> and 8<sup>th</sup> grades lost weight through a program at school, and students who attended a school-based life-skills training program were less likely than other students to smoke or use alcohol or marijuana.

### **Program Example**

Using CDC funds, Wisconsin established coordinated school health programs (CSHPs), giving its students the advantages of a well-rounded approach to school health that includes health and physical education, health and nutrition services, counseling/psychological services, a healthy school environment, and parent and community involvement. In 2001, in collaboration with the University of Wisconsin, the state's Department of Public Instruction (DPI) established an annual Best Practices in Physical Activity and Health Education Symposium, a 2-day staff development workshop for teachers. The DPI and Department of Health and Family Services were also awarded \$700,000 in additional CDC funding for a cardiovascular disease prevention project in Milwaukee Public Schools, resulting in enhanced nutrition education, school meals, and opportunities for physical activity. All Wisconsin school districts received nutrition education information and training opportunities. More than 3,200 staff were trained in topics such as the Dietary Guidelines for Americans 2000, the importance of a good breakfast, the relationship of nutrition to learning, and school nutrition policies to support healthy eating. In 2001, along with the state school health and physical education association, the DPI implemented "Movin' Schools," a complement to CDC's Youth Media Campaign. More than 10,000 young people increased their physical activity through school-linked activities in 2002.

### **Implications**

CSHPs are a vehicle for collaboration and are a good use of resources to improve the health of youth and the adults they will become. This program demonstrates how dollars invested in CSHPs deliver information and ideas for healthier living to thousands of students and their families.

### **Contact Information**

Wisconsin Department of Public Instruction  
125 South Webster Street • Madison, Wisconsin 53702  
Phone: (608) 266-9153 • Web site <http://www.dpi.state.wi.us/dpi/dlsea/sspw/index.html>



# Heart Disease and Stroke



For more information about CDC's cardiovascular health program,  
visit <http://www.cdc.gov/nccdphp/cvh/index.htm>



## Implementing Cardiovascular Disease Guidelines for Physicians and Patients to Improve Health Outcomes

### Public Health Problem

Cardiovascular disease (CVD), mainly heart disease and stroke, is the leading cause of death in Arkansas. The state ranks fifth in the country in deaths from heart disease and second in deaths from stroke. The increased burden of disease in Arkansas compared with the rest of the United States may be partially explained by the higher rates of cardiovascular risk factors among state residents. Behavioral Risk Factor Surveillance System (BRFSS) 1999 data indicate that more people in Arkansas than those in the general U.S. population have high blood pressure (28% vs. 24%), smoke cigarettes (25% vs. 22%), and are completely physically inactive (28% vs. 27%).

### Evidence That Prevention Works

Compelling evidence from recent clinical trials supports the merits of aggressive risk reduction therapies for patients with CVD. The American Heart Association and the American College of Cardiology urge all health care settings where CVD patients are treated to develop specific protocols and procedures reminding health care providers to implement the guidelines and assess the success of appropriate treatments.

### Program Example

The Arkansas Wellness Coalition (AWC) is a nonprofit voluntary organization composed of partners interested in improving health outcomes for Arkansans. Member organizations include the American Heart Association (AHA), managed care organizations, the Arkansas Department of Health Diabetes Prevention and Control and Cardiovascular Disease Programs, the Arkansas Quality Improvement Organization, pharmaceutical companies, Arkansas Medicaid, and the University of Arkansas for Medical Sciences. The Coalition's purpose is to improve the health and well-being of all Arkansans through the implementation of nationally recognized peer-reviewed guidelines for physicians and patient self-management. AWC works to coordinate efforts between health care providers and advocacy organizations to improve quality of care and health outcomes in targeted diseases, enhance consistency and efficiency of care by providing common core principles, and implement recognized standards of care. These efforts provide physicians throughout the state with the AHA guidelines and strategies for providing appropriate high blood pressure and high cholesterol treatment and follow-up care.

### Implications

This program demonstrates the importance of disseminating and implementing recognized guidelines for the primary and secondary prevention of CVD by applying health systems. A guidelines-based approach can result in better outcomes for patients by applying recognized prevention and treatment standards, which help ensure improved quality of life and reduced risk for initial and recurrent heart attacks and strokes.

### Contact Information

Arkansas Department of Health  
4815 W. Markham Street, Slot 3 • Little Rock, Arkansas 72205  
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## Addressing Secondary Prevention Through Health Care Provider Workshops

### Public Health Problem

Cardiovascular disease (CVD), mainly heart disease and stroke, is the leading cause of death for both men and women in Maine. In 2000, \$437 million was spent for cardiovascular-related hospital charges in Maine, which is about one-fourth of all hospital charges.

### Evidence That Prevention Works

Compelling evidence supports aggressive therapies for patients with CVD. The American Heart Association and American College of Cardiology urge medical care settings where CVD patients are treated to develop a specific plan to identify high-risk patients, apply the guidelines, and assess the success of appropriate treatments.

### Program Example

Supported by CDC, the Cardiovascular Health (CVH) Program in the Maine Department of Human Services, Bureau of Health, collaborates with the Maine Cardiovascular Health Council (MCHC) and the American Heart Association New England affiliate to improve secondary prevention. The CVH program and the American Heart Association provide regular training for health care providers. The American Heart Association hospital quality assurance program, "Get With the Guidelines," is being conducted. The CVH program collaborates with the American Heart Association and the American Hospital Association to implement prevention guidelines for patients discharged from hospitals. The Maine Taskforce on Cardiovascular Disease Prevention, the medical advisory arm of the CVH Program, implemented a system of enrolling patients in cardiac rehabilitation programs. Another partner, the Maine Cares Coalition, a network of provider-sponsored community-based support programs, is working to ensure that treatment for patients with coronary heart disease and congestive heart failure follows national guidelines.

### Implications

This program demonstrates the importance of implementing recognized guidelines for the primary and secondary prevention of heart disease and stroke, which lead to fewer deaths following heart attacks and strokes. In Maine, statewide improvements have already been documented in the increased use of lipid lowering medication and reductions in patient cholesterol levels.





## Partnering With Community Health Care Centers to Prevent Heart Attacks and Strokes

### Public Health Problem

Missouri has some of the highest rates of cardiovascular disease (CVD), mainly heart disease and stroke, in the country. It ranks second in the nation in deaths from coronary heart disease. Between 1990 and 1997, heart disease and stroke claimed 174,640 lives in Missouri, and in 1997, CVD accounted for 42% of all deaths. In 2000, Missouri had 210,735 hospitalizations attributed to heart disease and stroke, with direct medical costs exceeding \$3 billion.

### Evidence That Prevention Works

Preventable complications and deaths associated with CVD can be reduced if guidelines for standards of care are implemented. Effective management of hypertension results in highly significant reductions in premature death and disability from heart disease and stroke. Results from large-scale trials show that a 5 mm Hg reduction in diastolic blood pressure corresponds to a 21% reduction in heart disease risk. The recognition of stroke symptoms, use of the 9-1-1 Emergency Medical Systems, timely arrival at hospitals, and prompt treatment result in significantly improved outcomes for stroke victims.

### Program Example

The Missouri Cardiovascular Health (CVH) Program is partnering with the Missouri Diabetes Prevention and Control Program and Federally Qualified Health Centers (FQHCs) to administer and evaluate a new comprehensive approach to improving standards of care for patients with CVD, diabetes, and hypertension. The partners are implementing a registry that will store clinical patient data, making it possible to aggressively follow-up on and monitor FQHC patients. The FQHCs offer a unique opportunity to reach Missouri's high-risk minority and low-income populations, many of whom live in rural areas. In 2001, 184,712 Missourians used FQHCs as their primary source of health care. Additionally, the Missouri CVH program is collaborating with the Missouri Patient Care Review Foundation, the American Heart Association (AHA), and the Missouri Hospital Association to promote AHA's updated guidelines for the primary and secondary prevention of CVD. This approach is being carried out by working with health care systems, medical schools, and insurance organizations.


### Implications

This program demonstrates that populations benefit when states provide leadership and collaborate at the community level with organizations that provide, monitor, and pay for primary and secondary prevention services. State participation in the Cardiovascular Health Collaborative with FQHCs will enhance efforts to aggressively prevent heart disease and stroke, reduce health disparities, and increase access to quality care in these health care settings.

### Contact Information

Missouri Department of Health • Division of Chronic Disease Prevention and Health Promotion  
920 Wildwood Drive • P.O. Box 570 • Jefferson City, Missouri 65102-0570  
Phone: (573) 522-2800 • Web site: [www.health.state.mo.us](http://www.health.state.mo.us)

# North Carolina



## Influencing Environmental and Policy Changes in the Stroke Buckle States

### Public Health Problem

Stroke is the third leading cause of death in the United States. States in the Stroke Belt (North Carolina, South Carolina, Georgia, Alabama, Mississippi, Arkansas, Tennessee, and Louisiana) have higher stroke death rates than the rest of the country. Significantly higher rates occur in North Carolina, South Carolina, and Georgia, which make up the Stroke Belt Buckle. Many adults do not know the signs and symptoms of stroke and do not take immediate action. Lack of awareness and prompt response often result in stroke-related death and disability; only 26% of Americans can name the most commonly recognized warning sign of a stroke.

### Evidence That Prevention Works

Prevention of stroke disability and death is the best way to reduce the burden of this public health problem. Stroke prevention should include education on the signs and symptoms of stroke, of the need for emergency response (i.e., calling 9-1-1), and about stroke risk factors (high blood pressure, high cholesterol, diabetes, obesity) and lifestyle changes (quitting smoking, increasing physical activity) that can reduce stroke risk.

### Program Example

North Carolina, South Carolina, and Georgia formed the Tri-State Stroke Network in 2001. Consisting of 27 members from private and public sectors, the Network strives to increase public awareness of stroke signs and symptoms and when to call 9-1-1, and to enhance the treatment of stroke as a medical emergency. With the establishment of the Network, the three states support system enhancements by sharing limited resources and collaborating on stroke issues. With the addition of new partners, the Network is strengthening its capacity to address the excess burden of stroke in the Stroke Belt region. The Network has increased awareness of the stroke burden among state and local organizations, assessed the reasons for excess in stroke deaths, and examined priority strategies, regulations, and programs to improve stroke prevention. Because of the success of the Tri-State Stroke Network, CDC has funded additional states in the Stroke Belt to implement similar networks.

### Implications

This program demonstrates that state health departments are in a position to influence environmental and policy changes within their states by partnering with Emergency Medical System staff to promote statewide availability of 9-1-1, by increasing awareness of the American Heart Association guidelines on stroke signs and symptoms, and by implementing regional stroke networks with other states to share prevention strategies, resources, and partnership opportunities.



# South Carolina

## Closing the Gap: Addressing Cardiovascular Disease Among African American Communities

### Public Health Problem

Every year more than one in four South Carolina residents suffer from some form of cardiovascular disease (CVD), mainly heart disease and stroke, and in 2000, almost 14,000 persons died of CVD. Thirty percent of South Carolinians are African American, and they carry a disproportionate burden of cardiovascular-related deaths and hospitalizations. African Americans in South Carolina also have higher stroke rates than the national average and have a shorter life expectancy than other South Carolinians.

### Evidence That Prevention Works

The Institute of Medicine summary report states, “Many social, economic, political, and cultural factors are associated with health and disease for which changes in individual health behaviors alone are not likely to result in improved health and quality of life.” Environmental and policy changes, affecting large segments of the population, can affect the physical, social, and economic environment to facilitate better health.

### Program Example

In 2002, the South Carolina Cardiovascular Health Program provided funding and training to eight health districts to implement cardiovascular health projects in collaboration with local community partners. Each of the eight districts sponsored activities and training designed to create heart-healthy policies and environmental supports in African American communities. The Palmetto Health District: Promoting Healthy Congregations Project focuses on increasing heart-healthy policy and environmental supports in faith-based organizations. The project is developing a community asset map to identify strengths, assets, and resources within the community; creating a communitywide media campaign (including print and broadcast channels) to increase awareness about high blood pressure and the signs and symptoms of heart disease and stroke; and conducting CVD interventions that create policy and environmental changes to help make members of the church more heart-healthy. Churches and faith organizations select and implement specific policies and environmental strategies appropriate to their needs that address high blood pressure, high cholesterol, tobacco use, physical inactivity, and poor nutrition.

### Implications

In South Carolina, African Americans are at an increased risk of developing heart disease and stroke across all age and socioeconomic groups. Efforts to focus on this population through local community partners should result in strong social support for policy and environmental interventions that encourage heart-healthy behaviors.

### Contact Information

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## Partnering With Community Health Centers to Control High Blood Pressure

### Public Health Problem

High blood pressure is a major modifiable risk factor for heart disease and stroke. Although high blood pressure is controllable and detectable, it is a significant problem in the United States, with over 50 million adults suffering from high blood pressure. One in every four adults has high blood pressure and African Americans are at even greater risk, with one in every three adults suffering from high blood pressure.

### Evidence That Prevention Works

Altering one's lifestyle by increasing physical activity, reducing dietary salt intake, or taking blood pressure medication has been proven effective in lowering blood pressure. A 5 mm Hg reduction in diastolic blood pressure corresponds to a 21% decrease in coronary heart disease risk. Similarly, illness and death from heart disease and stroke can be reduced when diastolic or systolic blood pressure levels are within the normal range.

### Program Example

The Virginia Cardiovascular Health Program supports system enhancements to track blood pressure testing and outcomes at 17 community health centers by developing a database and supporting data entry for high blood pressure patient chart reviews. Patients previously diagnosed with high blood pressure were the focus of the chart reviews. Based on the clinical guidelines adapted from the *Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC VI)*, the chart reviews determine whether physicians are adhering to the guidelines for treating patients and whether their high blood pressure is under control. The Virginia Cardiovascular Health Program provides training for community health center practitioners and staff. The training sessions focus on implementing the guidelines for prevention, treatment, and control of high blood pressure. In addition to the training, the Virginia Cardiovascular Health Program is developing a video to be distributed to community health centers for on-site training to improve practitioners' ability to take accurate blood pressure measurements.

### Implications

This program demonstrates that states should partner with health care organizations, especially community health centers that serve low-income and often high-risk patients, to promote system enhancements, such as providing education and training about *JNC VI* guidelines and *Healthy People 2010* objectives.

# Nutrition and Physical Activity



For more information about CDC's nutrition and physical activity program,  
visit <http://www.cdc.gov/nccdphp/dnpa/index.htm>



## Launching *Colorado on the Move™*: A Comprehensive Effort to Increase Physical Activity

### Public Health Problem

Between 1987 and 2000, obesity reached epidemic proportions in the United States, with more than 45 million adults classified as obese. In Colorado, adult obesity (body mass index [BMI]  $\geq 30$ ) rates increased from 6.9% in 1990 to 14.9% in 2001; the prevalence of overweight (BMI  $\geq 25$ ) among adults also rose from 36.7% to 51.6% during those years.

### Evidence That Prevention Works

Research has demonstrated that preventive measures such as improved nutrition, tobacco cessation, increased physical activity, and early detection and intervention may prevent heart disease, stroke, and other chronic diseases. Physical activity helps to control weight; contributes to healthy bones, muscles, and joints; reduces falls among the elderly; helps to relieve the pain of arthritis; reduces symptoms of anxiety and depression; and is associated with fewer hospitalizations, physician visits, and medications.

### Program Example

Through a partnership with the University of Colorado Health Sciences, the Colorado Physical Activity and Nutrition Program is implementing two community interventions in Peetz, Colorado, which has a large rural population, and in the Denver Metro Black Churches, which allows program coordinators to work in an already established urban and African American setting to reach high-risk populations. These interventions focus on a physical activity component to encourage participants to walk 2,000 steps a day more than they walked before the program. Pedometers are offered to assist participants in their efforts. Additional worksites and community sites throughout the state are also participating. The intervention will introduce a nutrition component as well, most likely promoting a 5 A Day campaign. The program has been named *Colorado on the Move™*, and researchers at the University of Colorado plan to expand this effort beyond the currently funded program as additional money becomes available. In addition, four task forces were formed to guide the expansion of this program by assessing the burden of obesity and the impact of the other task force efforts (worksite, school, and community) to promote *Colorado on the Move™* and other initiatives.

### Implications

The *Colorado on the Move™* program serves as a model for other states that are trying to encourage increased physical activity. This program demonstrates the importance of promoting community-based programs that encourage small behavioral changes over time to achieve long-term, positive health outcomes.

### Contact Information

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# Hawaii

## Launching the Healthy Hawaii Initiative: A Statewide Program to Promote Physical Activity and Nutrition

### Public Health Problem

According to 2001 Behavioral Risk Factor Surveillance System (BRFSS) data, 48% of adults in Hawaii do not engage in sufficient amounts of physical activity. Although more adults are active in Hawaii than in other parts of the United States, ethnic disparities are problematic; 58% of residents of Japanese and Filipino ancestry do not engage in sufficient levels of physical activity.

### Evidence That Prevention Works

In 2001, the Task Force on Community Preventive Services identified six interventions that are effective in increasing physical activity levels in a community: (1) large-scale, high-intensity, community-wide campaigns with sustained visibility; (2) point-of-decision prompts encouraging people to use the stairs; (3) individually adapted health behavior change programs; (4) school-based physical education; (5) social support interventions in community settings; and (6) enhanced access to places for physical activity combined with informational outreach activities.

### Program Example

In 1999, Hawaii decided to use a large portion of tobacco settlement funds on the Healthy Hawaii Initiative (HHI). HHI targets physical inactivity, tobacco use, and poor nutrition. Prominent features of HHI include school health programs, community grants, education for health professionals, and a communication campaign, “Start Living Healthy.” CDC provided technical assistance to the Hawaii Department of Health in evaluation and participated in a conference that led to the publication of *Recommendations for Assessment, Monitoring, and Evaluation of Physical Activity in Hawai’i*. From 2000 to 2002, the initiative funded over 40 schools and communities to implement programs and environmental and policy changes. Funded interventions include a walk to school program, a joint land use agreement between the Department of Parks and Recreation and schools, and a program to implement SPARK (Sports Play & Active Recreation for Kids) into schools’ curricula. With a 15-year time frame (1999–2014), HHI seeks to bring about environmental, policy, and programmatic changes to make long-term improvements in physical activity rates.

### Implications

With adequate resources, commitment, and technical assistance, states can develop, launch, and evaluate statewide initiatives to promote physical activity. This program demonstrates the importance of collaboration between state health departments, universities, and CDC in establishing and developing a successful statewide initiative.





## Providing Disease Prevention Services and Athletic Shoes to Low-Income Women Through the WISEWOMAN Program

### Public Health Problem

Cardiovascular disease (CVD), mainly heart disease and stroke, is the leading cause of death in the United States and the number one health threat to women in Michigan. Improving nutrition and physical activity to reduce cardiovascular disease risk factors can be particularly challenging for low-income women, who typically have limited access to fitness centers, nutrition counseling, transportation, or fitness equipment.

### Evidence That Prevention Works

Research has demonstrated that preventive measures such as improved nutrition, increased physical activity, and early detection and intervention can prevent heart disease and stroke and improve the health of women who already have CVD. In addition, the University of South Carolina Prevention Research Center found that reducing barriers to exercise increases the likelihood that people will engage in physical activity.

### Program Example

CDC-funded WISEWOMAN programs provide additional preventive services to women participating in CDC's National Breast and Cervical Cancer Early Detection Program. States use this established system and other partnerships to screen women for risk factors for heart disease and other chronic diseases, conduct nutrition and physical activity interventions, and provide referrals for medical care and smoking cessation as needed. In Michigan, WISEWOMAN staff used funds made available through the Lansing Area League of Women Voters to buy athletic shoes for low-income program participants.


WISEWOMAN staff also partnered with a conveniently located store that carries athletic shoes to allow selected participants to receive a quality pair of shoes through a discount and \$30 gift certificate combination. Each recipient was required to meet with a lifestyle counselor to set goals and complete a lifestyle contract. By eliminating one important barrier to physical activity (lack of appropriate equipment), the Ingham County Health Department helps WISEWOMAN participants to lead healthier lives.

### Implications

Screening and lifestyle interventions that reduce barriers can improve the health of low-income women. The WISEWOMAN program demonstrates the importance of working with nontraditional partners to increase resources to help low-income participants reduce their risk for cardiovascular disease.

### Contact Information

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# North Carolina

## Promoting a Childhood Healthy Weight Initiative by Improving Nutrition and Physical Activity

### Public Health Problem

The percentage of children who are overweight in the United States doubled during the past two decades, and the percentage among adolescents almost tripled. Data from the North Carolina Nutrition and Physical Activity Surveillance System show an even greater increase in the state. Between 1995 and 2000, the prevalence of overweight increased by 36% in preschool children, 40% in school-aged children, and 14% in adolescents.

### Evidence That Prevention Works

Research has demonstrated that preventive measures such as improved nutrition, tobacco cessation, increased physical activity, and early detection and intervention may prevent heart disease, stroke, and other chronic diseases. Healthy eating behaviors lower the risk for many chronic diseases, including obesity, heart disease, stroke, some types of cancer, diabetes, and osteoporosis. By establishing healthy eating and physical activity habits early in life, children are more likely to carry these habits into adulthood.

### Program Example

Funded by CDC, the North Carolina Healthy Weight Initiative is the coordinating group for issues related to healthy weight, nutrition, and physical activity for the state's children. Through this initiative, North Carolina developed a comprehensive state plan focused on children aged 2–18 years. The North Carolina initiative is enhancing the state's pediatric nutrition surveillance system and is implementing programs designed to improve the nutrition and physical activity behaviors of young children and their families. Launched in the fall of 2002, the plan, *Moving Our Children Toward a Healthy Weight: Finding the Will and the Way*, calls for a multilevel approach to reducing the number of overweight and obese children. It focuses not only on behavioral and interpersonal change, but also on the organizational, community, and societal changes necessary to support healthy eating habits and increased physical activity for children, teens, and their families. North Carolina is also enhancing its pediatric nutrition surveillance system to better monitor trends in body mass index and selected dietary and physical activity behaviors. In addition, a pilot intervention in eight counties throughout the state targets children aged 2–5 who are enrolled in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) or the Child and Adult Care Food Program. This program uses policy, environmental interventions, and educational programs to reach staff members and families with important health messages.

### Implications

The North Carolina initiative uses strong partnerships to enhance the state's overall capacity to mobilize nutrition and physical activity promotion efforts and reduce the number of children who are overweight. This program demonstrates the importance of a coordinated approach, which entails collaboration among partners both internal and external to the North Carolina Division of Public Health.

### Contact Information



## Promoting KidsWalk-to-School Day: A Program to Promote Physical Activity and Pedestrian Safety

### Public Health Problem

In the United States, only about 1 of every 10 trips to school is made by walking or bicycling. Of school trips 1 mile or less, only 31% are made by walking, and within 2 miles of school, just 2% are made by bicycling. Research suggests that the decline in walking and bicycling may be contributing to the number of overweight children, and in Washington, the number of overweight children has doubled between 1980 and 1999.

### Evidence That Prevention Works

Immediate health benefits of regular physical activity for children include building and maintaining healthy bones, muscles, and joints; controlling weight and reducing fat; fostering healthy social and emotional development; and improving academic performance.

### Program Example

To increase opportunities for children to engage in physical activity, Washington State has promoted KidsWalk-to-School Day and the creation of safe walking routes for children to raise awareness about the importance of walking to school. The Washington Coalition for the Promotion of Physical Activity (WCPPA) and the Oregon Coalition for the Promotion of Physical Activity (OCPPA) collaborated to develop a KidsWalk-to-School Day packet of materials that included the Walkability Checklist, the Neighborhood Walking Safety Guide, CDC's KidsWalk-to-School Guide, a list of related educational Web sites, and a Safe and Active Routes to School presentation on CD-ROM. This packet was distributed to community leaders who are interested in promoting walk-to-school efforts. One of the best examples of community involvement in KidsWalk-to-School Day in Washington is in Kitsap County. The Kitsap County Health District solicited help from a broad array of partners including the American Red Cross, Washington State Traffic Safety Commission, Kitsap County Commission for Children and Youth, Parent Teacher Association (PTA), Kitsap Safe Kids Coalition, Kitsap Community Federal Credit Union, Naval Hospital Bremerton, and representatives from local school districts. About 3,500 children at seven schools and many parents participated in KidsWalk-to-School Day.

### Implications

The KidsWalk-to-School program encourages physical activity as an integral part of a child's daily routine. This program demonstrates the importance of promoting walking and bicycling to school to help increase the likelihood that children will engage in physical activity and carry this habit into adulthood. In addition, KidsWalk-to-School promotes the development of safe walking and bicycling routes and safe pedestrian practices to potentially reduce injury among children.

### Contact Information

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# Oral Health



For more information about CDC's oral health program,  
visit <http://www.cdc.gov/OralHealth/index.htm>



# New Hampshire

## Building Infrastructure to Expand Oral Disease Prevention Services

### Public Health Problem

In the early 1990s, New Hampshire did not have an oral health program within the state health agency. Without a state dental director, the state lacked oral health leadership and had one of the lowest fluoridation rates in the nation. In 1996, just 24% of people with access to public water systems in New Hampshire received fluoridated water; the *Healthy People 2010* objective is 75%. Not only did the state lack the capacity to plan, implement, and evaluate oral disease prevention programs, but also it had little capacity for gathering or analyzing surveillance information on the oral health status of its adults and children.

### Evidence That Prevention Works

According to *The Guide to Community Preventive Services*, tooth decay typically decreased by 30% to 50% in communities that instituted water fluoridation. Since the 1960s, the prevalence and severity of dental decay (cavities) declined dramatically among U.S. children and adults as a result of fluoride use. Despite these gains, dental decay remains a significant problem for many children, especially poor children and those of some racial and ethnic groups.

### Program Example

In 1997, CDC began helping New Hampshire develop oral health-related interventions, particularly community water fluoridation in collaboration with the Health Resources and Services Administration (HRSA). With modest federal funding, the state hired a part-time program coordinator for oral health, and CDC provided technical assistance in developing strategies to promote community water fluoridation. In 1999, voters in Manchester, the state's largest city, approved a water fluoridation initiative. CDC engineers worked with state water department staff to design a fluoridation system, which was implemented in 2000. Approximately 43% of the New Hampshire population on public water systems now receives fluoridated water. In 2000, a CDC epidemiologist was assigned to New Hampshire and 25% of his time was devoted to oral health. In addition, a state-supported full-time dental director was hired in 2001 to provide leadership for the state's oral health program. New Hampshire also used the Association of State and Territorial Dental Directors (ASTDD) Basic Screening Survey to complete the first statewide assessment of the oral health of schoolchildren in 2001.

### Implications

With capable staff dedicated to working on oral health issues, it is possible to obtain basic information on oral health status quickly and inexpensively and to use this information for planning and evaluating state oral health programs.

### Contact Information

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## Preventing Tooth Decay Through a Water Fluoridation Program

### Public Health Problem

Dental decay (cavities) has declined dramatically in the U.S. population because of preventive strategies such as community water fluoridation, the use of fluoride toothpastes and mouthrinses, and the application of dental sealants, plastic coatings placed in the pits and grooves of molar teeth to prevent cavities. Despite these gains, dental decay remains a significant problem for all age groups, particularly for poor people and those of some racial and ethnic groups. In 1992, only 2% of Nevada's population on public water supplies received fluoridated water.

### Evidence That Prevention Works

Water fluoridation, increasing the level of natural fluoride in drinking water to a level effective in preventing tooth decay, has been shown to prevent tooth decay in adults and children. In 2001, two major reports reaffirmed the effectiveness of water fluoridation. In one, a work group of fluoride experts convened by CDC concluded that scientific evidence supported the effectiveness of water fluoridation and recommended that it be continued and extended to additional communities. In the other, the U.S. Task Force for Community Preventive Services came to a similar conclusion and also issued a strong recommendation for water fluoridation.

### Program Example

Nevada has made significant progress in implementing water fluoridation. With grant assistance from CDC to purchase some of the needed equipment, Clark County, which includes Las Vegas and Henderson and has a population of about one million people, began water fluoridation in 2000. This measure increased the fluoridation coverage in Nevada from about 28,000 to approximately one million residents, or two-thirds of the population on public water. Nevada is also strengthening its capacity to monitor oral diseases, extend water fluoridation, and provide school-based dental sealants through a CDC cooperative agreement.

### Implications

Water fluoridation, the most cost-effective way to use fluoride to protect populations from dental decay, reaches 65.8% of the U.S. population on community water supplies, or about 162 million Americans. In 2000, about 100 million people in the United States were not receiving optimally fluoridated water. The average annual cost of water fluoridation ranges from \$0.50 per person in communities with populations of 20,000 or more, to \$3.17 in communities of less than 5,000 residents. This program demonstrates the importance of increasing access to fluoridated water as an effective means of decreasing tooth decay and its related pain and suffering, costs for treatment, and lost school and work days.



# Rhode Island

## Building Critical Infrastructure to Provide Standardized Oral Health Screening

### Public Health Problem

In 1998, Rhode Island did not have an oral health program within the state health department. Without a state dental director or program, Rhode Island had limited capacity to plan, implement, and evaluate oral disease prevention programs for at-risk children or gather surveillance information. In 1996, only 28% of children under age 14 years in Rhode Island's Medicaid program had received dental sealants, plastic coatings placed in the pits and grooves of molar teeth to prevent cavities; 35% of children screened in 1998 in 10 Providence inner-city elementary schools had unmet oral health needs.

### Evidence That Prevention Works

The number of teeth with dental decay has declined dramatically among U.S. school-aged children because of preventive measures such as community water fluoridation and the use of fluoride toothpastes and mouthrinses. Dental sealants complement fluoride use by further reducing dental decay. Despite these gains, dental decay remains a significant problem for many children, especially poor children and those of some racial and ethnic groups.

### Program Example

The *Healthy Schools! Healthy Kids! (HS!HK!) Oral Health Initiative* is a statewide effort supported by CDC to improve the oral health of Rhode Island children through school and community partnerships. The program is a collaborative effort by the Rhode Island Department of Education and the Rhode Island Department of Health. Activities have included the formation of the statewide *HS!HK!* Steering Committee, made up of members from more than 30 state, public, and private agencies, foundations, or organizations. Since implementing the cooperative agreement with CDC, the state has hired a dental director, a health promotion specialist, and an oral health program coordinator. The oral health staff, in conjunction with the Rhode Island Department of Education, worked to change state regulations and to implement these changes beginning with the 2000–2001 school year. Schools are now required to provide annual standardized oral health screenings for school-aged children in grades K–5, and once for those in the 7<sup>th</sup> through 12<sup>th</sup> grades. Parents of children requiring follow-up treatment are notified and given a referral list of community-based oral health providers. A standardized screening form was designed to collect data on children's oral health in order to define current needs and guide future oral health programs.

### Implications

Rhode Island has been successful in expanding and enhancing its state oral health programs because it has in place the three components of oral health infrastructure mentioned in the Association of State and Territorial Dental Directors report, *Building Infrastructure and Capacity in State and Territorial Oral Health Programs*: leadership to address oral health problems, development and promotion of policies for better oral health, and improvement of oral health systems.

### Contact Information



## Implementing a Dental Sealant Program for School-Aged Children

### Public Health Problem

The number of teeth with dental decay (cavities) has declined dramatically among U.S. school-aged children because of preventive measures such as community water fluoridation and the use of fluoride toothpastes and mouthrinses. Despite these gains, dental decay remains a significant problem for many children, especially poor children and those of some racial and ethnic groups. In 2001, a statewide survey of third-grade children in Wisconsin indicated that 52% of white children had at least one permanent first molar with a dental sealant; however, only 21% of African American children and only 39% of Asian children had sealants.

### Evidence That Prevention Works

Dental sealants, plastic coatings placed in the pits and grooves of molar teeth, have been proven to prevent dental cavities on these chewing surfaces. The U.S. Task Force for Community Preventive Services recently reviewed the scientific evidence of the effectiveness of school-based dental sealant programs. This evidence demonstrated a reduction in cavities of 60%. The Task Force issued a strong recommendation for school-based sealant delivery programs.

### Program Example

*Healthy Smiles for Wisconsin* is a statewide program supported by CDC to improve the oral health of Wisconsin children through school and community partnerships. The program is a collaborative effort led by the Wisconsin Department of Public Instruction and Department of Health and Family Services. The statewide *Healthy Smiles for Wisconsin* coalition also includes more than 25 state, public, and private organizations. The coalition's *Seal a Smile Initiative* (dental sealant program), which began in October 2000, has helped establish 40 new community-based dental sealant programs during the 2000–2001 school year. As of fall 2002, more than 4,900 school-aged children in 40 counties across Wisconsin have received dental sealants through this program. Because the coalition has focused attention on sustainability, the number of school-aged children who receive dental sealants will continue to increase.

### Implications

Dental sealants are a cost-effective way to prevent dental cavities in school-aged children. Increasing access to dental sealants among poor children would result in a significant decrease in tooth decay and the subsequent pain, suffering, costs for treatment, and lost school days. This program demonstrates the effectiveness of collaborative efforts to increase access to available health services and to eliminate racial and ethnic disparities among children who have dental sealants.

# Racial and Ethnic Approaches to Community Health



For more information about CDC's REACH program,  
visit <http://www.cdc.gov/reach2010/index.htm>.



## Using Community Health Advisors to Encourage Women to Obtain Cancer Screening Services

### Public Health Problem

In 2000, nearly 2,700 women were diagnosed with breast cancer in Alabama. In selected counties, there were more breast cancer deaths among African American (30/100,000) than among white (20/100,000) women.

### Evidence That Prevention Works

Mammography is the most effective method for detecting breast cancer early. Timely mammography screening could prevent 15%–30% of all deaths from breast cancer among women aged 40 or older. Additionally, detecting precancerous lesions by a Pap test and treating them can prevent cervical cancer and therefore prevent virtually all cervical cancer deaths.

### Program Example

Supported by CDC, the University of Alabama at Birmingham Breast and Cervical Cancer Coalition involves a variety of community-based, religious, grassroots, and health care organizations that serve the target population. The community action plan is designed to reduce disparities in breast and cervical cancer screening and outcomes between African American and white women through the use of community advisors. Core working groups of community health advisors, nurses, and church representatives disseminate information to support, encourage, and help women obtain cancer screening services and navigate the health care system. This approach is based on the Multilevel Approach Toward Community Health (MATCH) framework. Using health advisors, MATCH seeks to eliminate barriers that women face when trying to access health services.

### Implications

Using community-based health advisors as agents for behavioral change lends credibility to interventions to reduce the risk for breast and cervical cancer and increases the reach of the program in the community. This approach can extend lifesaving prevention programs and screening services across cultural divides to communities that would not likely be reached by traditional means.

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## Creating Customized Community Action Plans: Responding to the Needs of the Community

### Public Health Problem

In California, an estimated 20,000 women are diagnosed with breast cancer each year, and, on average, 13 women die of breast cancer each day. The incidence of cervical cancer is more than five times greater among Vietnamese women in the United States than among white women.

### Evidence That Prevention Works

Early detection and appropriate treatment could prevent virtually all cervical cancer deaths and about 15%–30% of breast cancer deaths among women older than age 40. The initial costs for breast cancer care, if diagnosed early before it has spread, may be as much as 32% lower than the initial care costs for breast cancer diagnosed after it has spread.

### Program Example

Through the CDC Foundation, the California Endowment funds the Special Services for Groups (SSG) Inc.'s Promoting Access to Health (PATH) for Women, a Los Angeles-area collaboration that focuses on reducing disparities in rates of breast and cervical cancer among Asian American and Pacific Islander women. SSG held focus groups and interviewed 2,100 Pacific Islander (Chamorro, Samoan, and Tongan) and Southeast Asian (Cambodian, Laotian, Thai, and Vietnamese) women in Los Angeles and Orange counties. SSG works with seven ethnic populations (Cambodian, Laotian, Thai, Vietnamese, Chamorro, Samoan, and Tongan) and draws on the leadership of its Pacific Islander and Southeast Asian community members and health care providers to develop customized community action plans and materials for each ethnic group. Each ethnic group implements its community action plan at its own level of readiness. The Samoan National Nurses Association is an example of one group that has been executing almost all facets of PATH for Women, including offering community outreach and education services, promoting a cancer ministries program with local Samoan pastors, establishing a cancer support group, and setting up mobile screening programs for community women.

### Implications

Community-based programs that seek community input are responsive in meeting the needs of a particular community. This program demonstrates the importance of giving communities the materials and plans to implement an effective intervention while allowing them to execute these plans in a manner and at a pace that resonates with their own culture and community. This approach can extend lifesaving prevention programs and screening services across a variety of cultures to communities that would not likely be reached by traditional means.





## Partnering With Community-Based Organizations to Improve Cardiovascular Health Among African Americans

### Public Health Problem

Cardiovascular disease (CVD) is the leading cause of death in Georgia, accounting for more than 23,000 deaths, or nearly 40% of all deaths in 1997. The two most common forms of CVD, heart attack and stroke, account for more deaths in every Georgia county than any other cause of death and is a major cause of costly hospitalization and disability.

### Evidence That Prevention Works

Research has demonstrated that modifying health-related behaviors that contribute markedly to CVD (i.e., tobacco use, lack of physical activity, and poor eating habits) is critical both to preventing and controlling the disease.

### Program Example

With CDC support, the Fulton County Department of Health and Wellness is enhancing efforts to reduce heart disease and stroke among diverse populations, including African Americans. The REACH for Wellness program works with its coalition partners to develop intervention strategies to improve cardiovascular health among African Americans residing in the Atlanta Empowerment Zone (AEZ). Designated by the Department of Housing and Urban Development in 1994, the AEZ consists of 30 neighborhoods occupying 9.29 square miles in central Fulton County. Ninety percent of the AEZ population is African American, and 76% of the population is made up of female-headed households with incomes below the poverty level, with a median household income of \$8,953. Through this coalition effort, partners hold weekly aerobics classes and work with supermarkets and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) to conduct grocery store surveys, classes, and demonstrations. A key partner in the coalition recruited churches, beauty salons, and barbershops to establish cardiovascular wellness centers in the community and has trained over 80 volunteers to conduct blood pressure monitoring.

### Implications

This community-based approach can extend lifesaving prevention programs and health services across cultures to communities that would not likely be reached by traditional means. The state will continue to spearhead the country's efforts to eliminate health disparities by applying lessons learned from the REACH 2010 projects in communities across Georgia. This program demonstrates the importance of close collaboration with community members and creative partnerships with public and private organizations to reach every community member with important health messages and services.

### Contact Information

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## Reaching Out to Low-Income Women to Prevent Breast and Cervical Cancer

### Public Health Problem

In the United States, African American women are more likely to die of breast cancer than women of any other racial or ethnic group. Cervical cancer death rates are more than twice the national average among African American women and are higher than average among Hispanic women. In the United States, more than 40,000 women will die of breast cancer, and more than 2,000 of them will be from Illinois. Currently, only about 9% of breast cancers in Illinois are detected at the earliest, most curable stages, and in 1998, Illinois was in the top 25% of states for women aged 50 or older who had not had a mammogram in the last 2 years.

### Evidence That Prevention Works

Timely mammography screening could prevent approximately 15%–30% of all deaths from breast cancer among women over the age of 40. According to the American Cancer Society, between 1955 and 1992, the number of deaths from cervical cancer declined by 74%, and the main reason for that decline was the use of the Pap test to detect cervical cancer early.

### Program Example

Supported by CDC, Reach Out is a broad-based Chicago-area collaboration that draws on the leadership of local churches to encourage low-income African American and Hispanic women to seek early breast and cervical cancer screening. Reach Out held focus groups of female members of seven African American and two Latino churches and learned that participants wanted relevant information about how breast and cervical cancer could affect them as individuals and as a community. Led by health educators in the community, each church used a standard education intervention in addition to other outreach methods such as incorporating health information and reminders about the importance of screening and early detection in Sunday sermons, developing support groups, and sponsoring health fairs.

### Implications

Community-based programs like Reach Out that seek community input are more likely than other programs to be responsive to the needs and the culture of the community. This approach can extend lifesaving prevention programs and screening services across cultural divides to communities that would not likely be reached by traditional means.





# Massachusetts

## Exploring Nontraditional Approaches to Educate Special Populations About Available Health Services

### Public Health Problem

Cambodians in Lowell, Massachusetts, are at a disproportionate risk for diabetes and cardiovascular disease (CVD), mainly heart disease and stroke. Among Cambodians in Lowell aged 45 or older, a disproportionate share of deaths are attributable to stroke (15.9%) and diabetes (13.4%) compared with total Massachusetts stroke (6.5%) and diabetes (2.5%) death rates. In 1999, heart disease was the leading cause of death for both Cambodian and all Massachusetts adults.

### Evidence That Prevention Works

Research from several studies has demonstrated that improving nutrition, increasing physical activity, and improving access to proper preventive care can prevent or delay the progression of CVD and adverse diabetes-related outcomes such as lower-extremity amputations, kidney disease, and blindness.

### Program Example

A critical part of the REACH 2010 strategy is to improve the health of racial and ethnic minority populations. With support from CDC, the Cambodian Community Health 2010 project in Lowell, Massachusetts, targets CVD as its primary focus and diabetes as a secondary focus for Cambodian populations. During year one of the project, Community Conversations were held in seven locations throughout the Cambodian community to involve all community members in developing the action plan. The Community Action Plan combines strategies focusing on the Cambodian community and its leaders, the health care system and medical providers, and public health research. Strategies to reach community members included organizing a “walking meditation” trip through a Buddhist temple, conducting weekly Tai Chi classes, promoting medical interpreter services, and conducting a behavioral risk factor survey adapted for Cambodians. A Cambodian Elders’ Council also was formed to give a voice to older Cambodian refugees who often are homebound and isolated because of language barriers. Learning tours were also conducted to familiarize Cambodians with emergency services and related facilities such as police stations, hospitals, and city hall. Fruit and vegetable picking trips gave participants an opportunity to focus on nutrition, and health education classes, including smoking cessation instruction, were conducted in English as a Second Language classes.

### Implications

This program demonstrates the importance of collaborating with community members and using culturally appropriate and innovative strategies to extend health education and services to special populations.

### Contact Information

Lowell Community Health Center  
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## Reducing Racial Disparities in Health Outcomes: Prenatal Care and Infant Mortality

### Public Health Problem

African American, American Indian, and Puerto Rican infants have higher death rates than white infants. In 1999, the infant mortality ratio was 2.5 times higher among black infants than among white infants (up from 2.4 in 1998). This widening disparity between black and white infants is a trend that has persisted over the last two decades, and the Michigan infant mortality rate continues to be higher than the national rate. For every 1,000 Michigan live births, approximately 8 infants die before reaching their first birthday.

### Evidence That Prevention Works

Women who receive prenatal care in the first trimester have better pregnancy outcomes than women who receive little or no prenatal care. For example, the likelihood of delivering a very low-birth-weight (VLBW) infant (one weighing less than 1,500 grams or 3 lbs. 4 oz.) is 40% higher among women who receive late or no prenatal care compared with women entering prenatal care in the first trimester. Approximately 95% of VLBW infants are born preterm (after less than 37 weeks of gestation), and the risk of early death for VLBW infants is about 65 times that of infants who weigh at least 1,500 grams.

### Program Example

Supported by CDC's REACH 2010 program, the Genesee County Precious Black Babies Project is a Flint-area collaboration that emphasizes reducing racial disparities in health outcomes with a particular focus on infant mortality through population and systematic interventions that embody cultural understanding, sensitivity, and relevance. Through the project, health communications professionals created a campaign to raise awareness among community residents about racial disparities in infant death rates and to educate these residents on how to reduce disparities in infant mortality. Through the project and a faith-based health network, community events were sponsored to provide a forum to disseminate information about reducing African American infant mortality rates. Over 150 people, including city officials, local vendors, and nurses, attended the rally. Four workshops were also held to engage the community about the issue of race and access to health care and discuss strategies to address the problem.

### Implications

Community-based programs like the Genesee County Precious Black Babies Project that seek community input are more likely than other programs to address the needs and the culture of the community. This community-based approach can extend lifesaving prevention programs and health services across cultures to reach communities that would not likely be reached by traditional means.



## Partnering With Parents to Communicate the Importance of Childhood Immunizations

### Public Health Problem

Almost one million children in the United States live without the benefits of full immunization. For these children, the risk of serious illness and even death from vaccine-preventable diseases is great. Although northern Manhattan has a young population (1 of 10 people is younger than 5 years of age), it lags behind the rest of the city in protecting its children from the risk of infectious diseases. In 1999, only half of the children under 3 years of age in northern Manhattan had received all recommended vaccines.

### Evidence That Prevention Works

Research has demonstrated that immunizations against common vaccine-preventable diseases can prevent disease and benefit not only those who receive them, but also those who have not been vaccinated because immunized people cannot spread these diseases to others. As a result, many childhood diseases that were considered a normal part of growing up in the 1940s and 1950s are now preventable and occur rarely.

### Program Example

The Northern Manhattan Start Right Program is an innovative immunization program. While national programs focus heavily on providers, the Start Right Program established a strong community and family-based approach. The CDC-funded Northern Manhattan Start Right Coalition, a coalition of 17 social service organizations, trained 590 staff and community residents to promote childhood immunizations with parents. Those who are trained talk one-on-one with parents as they register for health insurance coverage for their children, parenting programs, childcare programs, Head Start programs, WIC visits, housing association meetings, or church events. Parents are invited to join the program and the trained staff member explains when their child's shots are due and why the shots are important. Both immunization registries and the child vaccination cards are used to monitor whether enrolled children received their shots. Parents are congratulated when their children complete all childhood vaccinations on time. Since the program was launched, almost 2,000 parents have enrolled.

### Implications

The Northern Manhattan Start Right Program demonstrates the importance of integrating health promotion activities into the routine activities of community and social service organizations as an effective strategy for reaching families not easily reached by health systems.

### Contact Information

New York State Department of Health • Metropolitan Area Regional Office  
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## Training Peer Educators and Advocates for Health: The REACH Promotora Community Coalition

### Public Health Problem

Compared with rates among whites, rates of diagnosed diabetes are 2.5 times higher among American Indians and Alaska Natives, 2.0 times higher among African Americans, and 1.8 times higher among Hispanics. The Texas Department of Health estimates that more than 1.3 million Texans aged 18 years or older have diabetes. About 911,000 of these, 6% of the state's population, have been diagnosed; the remainder are not aware they have the disease.

### Evidence That Prevention Works

In the United States, diabetes is the leading cause of new cases of blindness, lower-extremity amputations, and kidney failure. These serious outcomes can be prevented or substantially delayed through regular screening, appropriate care that includes long-term follow-up, and behavior modification.

### Program Example

Supported by CDC, the REACH Promotora Community Coalition, led by Migrant Health Promotion, has developed a program to address diabetes along the border of Texas and Mexico. The coalition targets communities in Hidalgo and Cameron counties, which are more than 80% Mexican American and have some of the lowest socioeconomic indicators, with more than 35% of their residents living below the poverty line. Developing the full potential of the community health workers (*promotoras*) is key to this program. The *promotoras* not only serve the community as health educators and advocates, but also are trained to become community leaders as they gain experience as community organizers, program planners, and program evaluators. The target population lives in *colonias*, which are communities with little infrastructure. Therefore, it is vital to use existing institutions such as public schools, community health clinics, and community-based organizations to reach this population. Also, because many adults lack access to transportation or telephones, much of the work is conducted through home visits and neighborhood meetings. As a result of the Migrant Health Promotion project, school health teams have been created to assess existing nutritional choices and opportunities for physical activity in schools and suggest measures to improve these choices and opportunities at school and at home.

### Implications

By using community-based health advisors to promote behavior change along with an evaluation component to document and assess their contributions, the Migrant Health Promotion project lends credibility to diabetes prevention interventions. This community-based approach can extend lifesaving prevention programs and health services across cultural divides to communities that would not likely be reached by traditional means.

# Tobacco



For more information about CDC's tobacco program,  
visit <http://www.cdc.gov/tobacco/index.htm>





## Reducing Tobacco Use Among Teenagers Through a Comprehensive Tobacco Control Program

### Public Health Problem

In 2001, 39% of high school students in Minnesota used tobacco, which was higher than the national average of 35% for this age group. Of the 1,245,492 young people aged 17 or younger in Minnesota, more than 97,000 will die prematurely of a tobacco-related disease if current tobacco-use patterns persist.

### Evidence That Prevention Works

Aggressive and comprehensive tobacco control programs in California, Florida, Massachusetts, Oregon, and Minnesota have produced substantial declines in cigarette use. Minnesota's multicomponent, statewide program has been in effect since 2000. In just 2 years, teen tobacco use in Minnesota has decreased by 11%.

### Program Example

With resources from Minnesota's settlement with the tobacco industry, the Minnesota Department of Health (MDH) designed and manages the Minnesota Youth Tobacco Prevention Initiative. The goal of the Initiative is to reduce youth tobacco use by 30% by 2005. The Initiative is a comprehensive effort that includes competitive grant programs supporting (1) community-based grants to 31 local groups and 31 population-at-risk (PaR) groups; (2) statewide initiatives and development grants specifically designed to meet the technical assistance needs of community-based grantees in the areas of evaluation, communication, media advocacy, youth development, legal resources, school-based prevention, secondhand smoke policy development, and partnership development; and (3) a marketing campaign/youth advocacy organization (Target Market) designed to counter tobacco industry marketing efforts through public information and education. All recipients of community-based grants are provided strategic planning and general technical assistance through regional MDH grant managers. PaR grantees receive additional, specialized support through a statewide technical assistance grant designed to meet the strategic needs of PaRs. The Initiative aims to reach all youth aged 12–17 years, with an emphasis on those in middle school (aged 12–14 years).

### Implications

When tobacco control programs are sustained over time, reductions in tobacco use occur. Reaching the 2005 goal will ultimately prevent 1,700 premature deaths and save \$480 million in health care costs every year in Minnesota. This program demonstrates the importance of implementing strategies that have been successful in other states and sharing best practices across states to ensure reductions in tobacco use among youth.

### Contact Information

# Nebraska



## Implementing a Comprehensive Tobacco Control Program to Reduce Tobacco Use

### Public Health Problem

In 1999, cigarette smoking was responsible for an estimated 2,400 deaths in Nebraska, and tobacco-related health care expenditures cost the state an estimated \$419 million annually. Projections based on current data are that about 45,000 Nebraskan youth will become smokers and die prematurely as adults because of a smoking-related illness.

### Evidence That Prevention Works

Aggressive and comprehensive tobacco control programs in California, Florida, Massachusetts, and Oregon have produced substantial declines in cigarette use. In California, home to one of the longest-running tobacco control programs, rates of lung and bronchial cancer have declined 14%.

### Program Example

The Tobacco-Free Nebraska program is a multifaceted, comprehensive tobacco control program that incorporates community-based initiatives that involve a wide range of strategies (such as compliance checks with retailers and restaurants related to sales to minors and smoke-free environments) and target a variety of audiences, from at-risk high school youth to policy makers to racial and ethnic minorities. The program also supports state initiatives, including a media campaign and toll-free quit line, which are targeted to youth and adults. Nebraska's program also increases local tobacco control capacity by training people to develop and implement tobacco control strategies and to monitor and evaluate how successful these efforts are. Ongoing tobacco-use surveys are used to track patterns and changes in tobacco use in the state. In addition, an independent firm conducts ongoing evaluation of the program. Another program effort is the Teen Tobacco Education and Prevention Project, which provides high school students with the opportunity to compete for \$100,000 grants to design and create antitobacco messages and campaigns for their peers.

### Implications

When tobacco control programs are sustained over time, reductions in tobacco use occur. By implementing strategies that have been successful and following nationally recognized standards, Nebraska is poised for success in reducing tobacco use. This program demonstrates the importance of a comprehensive program to ensure reductions in tobacco use.





## **Reaching Target Groups With High Rates of Tobacco Use Through Comprehensive Tobacco Control: A Policy-Based Approach**

### **Public Health Problem**

In 2000, almost 21% of adults in Oregon were reported to smoke. Tobacco contributes to approximately 6,500 deaths in Oregon annually. If current tobacco-use patterns persist, approximately 73,000 young people in Oregon aged 17 years or younger will die prematurely of a tobacco-related disease.

### **Evidence That Prevention Works**

Aggressive and comprehensive tobacco control programs in California, Florida, Massachusetts, and Oregon have produced substantial declines in cigarette use. In California, home to one of the longest-running tobacco control programs, rates of lung and bronchial cancer have declined 14%.

### **Program Example**

Sponsored by CDC, Oregon's comprehensive tobacco control program includes media spots, innovative programs such as the Oregon Quit Line to help people quit smoking, a multifaceted school program, and the promotion of smoke-free workplaces and school environments. In addition, the state health department dedicated funding to target groups with high rates of tobacco use, such as gay men and African Americans. From 1996, when Oregon's comprehensive program was established, to 2001, cigarette consumption has decreased 30% (or 1.5 billion cigarettes per year), the proportion of Oregon students who smoke fell from 22% to 12% among 8<sup>th</sup> graders and from 28% to 20% among 11<sup>th</sup> graders, and the proportion of Oregon adults who smoke decreased from 23% to 21%. In addition a state law went into effect (as of January 1, 2002) that prohibits smoking in enclosed workplaces, with exemptions for bars and some other venues.

### **Implications**

Because almost all smokers begin smoking during their teenage years, preventing tobacco use among young people is critical to the overall goal of reducing the prevalence of smoking. In addition, policies that make enclosed workplaces smoke free protect workers and patrons from the health problems associated with secondhand smoke, promote cessation, and establish healthy social norms. Programs like Oregon's comprehensive tobacco control program play pivotal roles in reducing and eliminating tobacco use and demonstrate the importance of a policy-based approach.

#### **Contact Information**

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## Identifying and Eliminating Disparities in Tobacco Use Through a Cross-Cultural Workshop

### Public Health Problem

In 2000, an estimated 21% of adults in Washington were reported to smoke cigarettes, but among some subpopulations the prevalence was much higher: for example, 37% among American Indians/Alaska Natives. In large part, this disparity may be attributed to limited access to tobacco prevention and control resources.

### Evidence That Prevention Works

In Washington, state-funded county-based programs have shown measurable progress in meeting statewide tobacco control objectives, including large declines in per capita cigarette consumption. Future efforts directed at identifying and eliminating disparities in smoking rates will build on this infrastructure and establish new capacity within underserved communities, where populations are often heavily targeted by tobacco industry marketing. The state has learned that community-based nongovernmental community organizations are generally more effective at reaching local populations than are state or local governments.

### Program Example

The Washington Department of Health convened a Cross-Cultural Workgroup on Tobacco to identify populations disparately affected by tobacco use. The membership includes representatives from organizations working with African American, American Indian, Asian American/Pacific Islander, Hispanic/Latino, gay-lesbian-bisexual-transgender, pregnant, low-income, and faith-based populations. Using CDC and state funds, Washington is developing a strategic plan to identify and reduce tobacco-related disparities and a marketing plan to educate community leaders of diverse populations about the strategic plan and to engage them in its implementation. During the strategic planning process, the state program funded six populations to assess their capacity and readiness to implement tobacco prevention and control activities and evaluated the strategic planning process.

### Implications

Securing meaningful participation in the strategic planning process from a broad range of population groups will enable Washington's Department of Health to identify the groups experiencing the most pronounced tobacco-related disparities. This program demonstrates the importance of developing culturally and contextually appropriate interventions to reduce health disparities.



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